

**Accounting for Human Rights Violations Risk: Conflict Minerals
Mandatory Disclosures under the Dodd Frank Act**

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**Submitted in partial fulfillment
of the requirements for the degree of**

Master of Science in Management (Accounting)

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Abstract

This paper examines the equity market response to firms' disclosure of human rights violation risk with regard to conflict mineral usage as required by Section 1502 of the Dodd-Frank Act (the Act). This paper assesses the aggregate equity market response to regulatory events leading to the passage of the Act, the equity market reaction to voluntary early disclosures and mandatory disclosures of conflict mineral information in Form SD, as well as the determinants of the equity market response. Using a sample of 4,399 US registrants from January 1, 2008 to September 30, 2014, we document a significant negative stock market reaction to the passage of the Act and to conflict minerals disclosures on Form SD. The equity market reaction is more negative and limited to companies that source their minerals from conflict zones, companies with human rights violations, and companies with ambiguous disclosures. Taken together, the results of this study provide an economic justification for companies with poor conflict minerals practices to improve in order to avoid high costs that will arise if firms are forced to disclose human rights abuses. This paper also provides preliminary evidence that Form SD is successful in reducing the governance gap that exposes investors to unnecessary sanction, litigation and reputation risk from firms' activities in conflict minerals usage.

Key words: Human Rights, Dodd-Frank Act, Corporate Disclosure, Conflict Minerals, Corporate Social Responsibility.

Acknowledgements

First of all, I would like to express my sincerest gratitude to my supervisor, Dr. Fayez A. Elayan. His continuous support and inspiration enable me to move forward smoothly through every step of my research. His illuminating instruction and guidance have laid a solid foundation on my research experience, which benefit me throughout the whole MSc program.

I would like to extend my deepest appreciation to my external examiner, Dr. Khalid Nainar, for his valuable suggestions on my thesis. His insightful comments will not only help to strengthen my thesis but also indicate the directions for further studies on this topic.

Also, I feel very grateful to receive the supports from my committee member, Dr. Kareen Brown and Dr. Jingyu (Jennifer) Li, who offer splendid and constructive suggestions during the entire process of my thesis development. Thanks for your efforts that help elevate my thesis a lot.

Moreover, I would like to thank my parents for their infinite supports throughout my entire education and my friends for offering precious assistances during my study in MSc program. Meanwhile, my sincere appreciation goes to our Graduate Program Director, Carrie Kelly, as well as our Administrative Assistant, Marisa Battista and Betty McDowell, for their timely and helpful administrative supports throughout these two years of my graduate study.

Table of Contents

1. Introduction	1
2. Human Rights and Accounting Disclosures	11
3. Contributions of the Study	17
3.1. Aggregate Equity market response to Regulatory Intervention Timeline	18
3.3. The determinants of the Equity market response	23
3.4. Early-Voluntary vs Mandatory Disclosures	24
4. Testable Hypotheses	25
4.1 Regulatory Intervention Timeline of the Conflict Minerals Act	25
4.2. Special Disclosures of Conflict Minerals Information in Form SD	26
4.3. Cross-Sectional Regression	29
4.3.1. Human Rights Violation Risk.	29
4.3.2. Financial Reporting Costs, Financial Performance and Financial Reporting Quality .	33
4.3.3. Information Asymmetry (<i>SPREAD</i>)	34
4.3.4. Control Variables	35
4.4. Early Disclosures of Conflict Minerals Information	35
5. Data and Method of Analysis	36
5.1. Regulatory Intervention Timeline Sample	37
5.2. Special Disclosures of Conflict Minerals (Form SD) Sample	39
5.3. Cross-sectional analysis	41
5.4. Logistic Regression Analysis	43
5.4.1. Financial Performance (<i>FP</i>)	43
5.4.2. Financial Reporting Quality (<i>FRQ</i>)	45
5.5. Early disclosure sample	46
6. Results	49
6.1. Results of the Univariate Analysis	49
6.2. Results of the Equity market reaction	50
6.3. Results of Cross-Sectional Analysis	56
6.4. Results of the Logistic Regression	60
7. Summary and Conclusions	62
References	66
List of Tables	73
Appendix A: Regulatory Intervention Timeline to Section 1502 Conflict Minerals	83
Appendix B: Conflict Mineral Worldwide Production Distribution in 2009 by Top 5 Countries of Producers	88

Appendix C: Description of the Variables utilized in the Study	89
Exhibit 1: Flowchart of Conflict Mineral Disclosure by SEC.....	91
Exhibit 2: Form SD 2014 Disclosure for Intel Corporation	92
Exhibit 3: Form SD 2013 Disclosure for Veeco Instruments Inc.	94

List of Tables

Table 1: Frequency Distribution by Fama-French Industry Classification Code	73
Table 2: Summary Statistics and Univariate Analysis	74
Table 3: The Equity Market Response to Announcements of Regulatory Timeline of Conflict Minerals Rules.....	75
Table 4: Equity market reaction to Disclosures of Conflict Minerals Information in Form SD	76
Table 5: The Equity Market Reaction to Conflict Minerals Related Early Disclosures in the CSR Report	77
Table 6: Person (upper segment) and Spearman (lower segment) Correlation Coefficients among the Independent Variables	78
Table 7: Results of the Cross-Sectional regression Analysis - with FRQ	79
Table 8: Results of the Cross-Sectional regression Analysis - without FRQ	80
Table 9: Result of the Logistic Regression Analysis - with FRQ	81
Table 10: Result of the Logistic Regression - without FRQ.....	82

1. Introduction

The mining of rare minerals by armed groups under conditions of human rights abuses in the eastern region of the Democratic Republic of Congo (DRC) and adjoining countries has been occurring since May 1997, and continuous conflict has led to the death of about 5 million people in the region (Ochoa and Keenan, 2011). The minerals at the root of the conflict are called “conflict minerals” defined in Section 1502(e)(4) of the Dodd-Frank Act (hereafter, the Act) as “(1) columbite-tantalite, also known as coltan (the metal ore from which tantalum is extracted); cassiterite (the metal ore from which tin is extracted); gold; wolframite (the metal ore from which tungsten is extracted); or their derivatives; or (2) any other mineral or its derivatives determined by the Secretary of State to be financing conflict in the DRC or an adjoining country.” These minerals are widely used in commonly used products such as electronic components and circuit boards, tools, jet engine components, jewelry, wires, electrodes and electrical contacts. The conflict involves local militias, military groups, Congolese and Rwandan rebels and the Congolese army who fight to win control over the countries’ rich mineral deposits, and in the process murdering and raping civilians.¹ The situation can be regarded as one of the deadliest conflicts since World War II. Despite its vast mineral resources valued at around 24 trillion dollars, which is equal to the combined GDP of the United States and Europe², the DRC is ranked among the poorest countries in the world³⁴⁵⁶ and the lowest on the 2012 U.N. Human Development Index⁷. This is mainly because the DRC is hardly to be benefited from these valuable mineral resources.

¹ BSR (2010). “Conflict Minerals and the Democratic Republic of Congo. Responsible Action in Supply Chains, Government Engagement and Capacity Building. http://www.bsr.org/reports/BSR_Conflict_Minerals_and_the_DRC.pdf

² United Nations Environment Programme (2011). “UNEP Study Confirms DR Congo's Potential as Environmental Powerhouse but Warns of Critical Threats” <http://www.unep.org/NEWSCENTRE/default.aspx?DocumentId=2656&ArticleId=8890>

³ These minerals include oil, rubber, gold, copper, uranium, diamonds, cassiterite, wolframite, tantalum, and cobalt (Seay, 2012).

⁴ See <http://www.gfmag.com/component/content/article/119-economic-data/12537-the-poorest-countries-in-the-world.html>

⁵ See <http://ffp.statesindex.org/rankings-2013-sortable>

⁶ See <http://pages.eiu.com/rs/eiu2/images/Democracy-Index-2012.pdf>

⁷ See <https://data.undp.org/dataset/Table-1-Human-Development-Index-and-its-components/wxub-qc5k>

As reported by United Nation (2005), throughout the period 1993 to 2003 – as well as before and after – the exploitation of natural resources in the DRC was characterized by extensive corruption, fraud, pillage, mismanagement and lack of transparency. Political, military and business elites, as well as rebel groups and armies of neighboring countries, plundered these resources and got rich off the back of the Congolese population. Initially, in 1990s, the conflict in DRC region appeared to be driven primarily by political, ethnic factors. However, the exploitation of natural resources became increasingly attractive as the parties became more entrenched. Along with the fierce war, the profit derived by the exploitation of these mineral resources serve as the catalyst of the war efforts as well as the source of personal enrichment. Finally, The conflict can be regarded as a "war for profit"(Amnesty International, 2003. p.10). Given that the majority of mines in the eastern DRC are controlled by armed groups and that millions of people in that country depend in some way on the minerals trade, the result is debt bondage slavery, child labor, and sexual slavery, consequences particularly heinous for women and children.⁸Many of these conflicts are covertly or overtly supported by corporations whose products rely on conflict minerals, and extends to other countries and other industries. For example, Platform, a London-based non-government organization monitoring the oil and gas industry accused Royal Dutch Shell (RDSa.L) in 2011 of funding armed gangs and government forces to torture and kill Nigerians in the swamps of the Niger Delta.⁹

The troubling statistics of the number of deaths in the DRC and the associated atrocities, have resulted in a public call for legislation to regulate companies' supply chains and reduce the usage of conflict minerals that are likely to cause human rights violation. Despite its reluctance to use its

⁸ Open Square Foundation (2015). Free the slaves. The Congo Report. Slavery in Conflict Minerals. <https://www.freetheslaves.net/wp-content/uploads/2015/03/The-Congo-Report-English.pdf>

⁹ <http://www.reuters.com/article/2011/10/03/nigeria-shell>.

power to direct social change, the SEC responded to the call, and on July 21, 2010, Section 1502 of the Act was introduced which requires mandatory disclosure on conflict minerals usage for all US registered firms, on a new form (Form SD) no later than May 31, 2014¹⁰. The main purpose of the Act is to cut the supply of funds to armed groups and stop the human rights atrocities committed by these groups. This study examines the equity market reaction to the passage and implementation of this new piece of legislation.

Anecdotal evidence presents mixed views on the passage of the conflict minerals Act. The views of proponents such as non-profit organizations, like Save the Congo, The Enough Project, and Solutions for Hope, are consistent with the “doing well by doing good” hypothesis. In their opinion, Section 1502 of the Dodd-Frank Act links human rights to firm performance, and encourages companies to exercise due diligence in managing their supply chains in a manner that avoids human rights abuse (ICAR, 2014). They believe that decreased use of conflict minerals will reduce support to armed groups, cutting off financial resources that fuel the ongoing conflict in the covered zone (Sarfaty, 2013).

Opponents of the legislation include many companies and their stakeholders are concerned about the additional compliance costs. The SEC Chairman herself questions the use of the SEC’s power to mandate disclosure “directed at exerting societal pressure on companies to change behavior, rather than to disclose financial information that primarily informs investment decisions” (SEC, 2013). The SEC estimates initial compliance costs of 3 to 4 billion dollars (Woody, 2012) with an additional 200-400 million dollars for continuous compliance (Sarfaty, 2013). In order to evade the high cost, some companies may choose the options of delisting from US stock exchange

¹⁰ Since the initial deadline may 31, 2014 falls on Saturday, the SEC extended the deadline to Monday, June 2, 2014

because only companies listed in US are subjected to the conflict mineral disclosure. For example, the Foreign Corrupt Practices Act of 1978 has imposed out-of-pocket jurisdiction and other compliance costs on US regulated companies, which provide an incentive for non-U.S. companies to delist or not to offer or register from US market (Ministry of Justice, 2010). However, this time companies are reluctant to choose this option in that delisting from US Stock Market will incur risks and costs as well. As Section 1502 has set an example for business regulation on human rights, other regions such as European countries and Canada would like to follow suit. On June 15, 2015, the draft of EU conflict minerals regulation was voted by the European Parliament Committee on International Trade (INTA)(Dynda & Kate, 2015). Similarly, the Bill-C-486 has been proposed by Paul Dewar in Canada. As a result, in the long run, companies are not likely to be exempt from the costs and risks if they move to another country. Another problem is exacerbated because it might still be impossible to do 100% due diligence, even with significant financial outlay (Mary, 2010). However, costs would be imposed, not just on companies, but also on countries. Some sociologists assert that the Act will not ease the present conflict in the DRC, but might instead hurt the economy and intensify the conflict between its government and rebel groups (Seary, 2012). Additionally, if the new legislation discourages companies from importing minerals from the DRC, resulting in an embargo in the region, certified suppliers would be hurt as well as the DRC economy (Dominic, 2010). In the end, Lynn (2011) argues, the new legislation is focussed on achieving social and public policy goals, rather than protecting shareholder wealth.

In this paper we revisit the unresolved issue of the value relevance of CSR disclosures by focussing on human rights disclosures. Specifically, we provide joint evidence on the effectiveness of Section 1502 of the Dodd-Frank Act and on the SEC's implementation of the Act which is the SEC's first attempt at legislating human rights disclosures. Given the division among stakeholders

regarding the benefits of the Act, it is clear that the answer to the question of whether Section 1502 provides material information is an empirical one.

The disclosure requirements of the Act are special and uniquely different from other disclosures of CSR published as part of the firm's financial statements, in many ways. For one, it is the first mandatory disclosure by the SEC to address corporate human rights violations and appears to be a departure from its mandate to "protect investors, maintain fair, orderly and efficient markets and facilitate capital formation." However, the SEC maintains that this unique regulation, aimed at protecting human lives, is a way to "ensure capital allocative and operational efficiency" and serve as "an integrity injection mechanism within the capital market."¹¹ Secondly, Form SD disclosures may be precedential and serve as an example for similar legislation to regulate social criteria through US securities laws. Knowledge learned from the passage of the Act could also be extended to other conflicts or products, and even to human rights issues that do not involve conflict (Drimmer and Phillips, 2011). As such, the Act may have far-reaching implications that go well beyond conflict minerals and may signal a new role for the SEC in regulating social issues. Third, the information disclosed on Form SD appears to be more credible than that disclosed in CSR reports. In order to comply with the Act, SEC registrants that use conflict minerals in their manufactured products must conduct and report annually on their due diligence, and disclose this to the SEC. This process should lend credibility to the information disclosed. Additionally, Form SD disclosures need to be audited by external independent auditors, which make it less subject to management manipulations and should increase the credibility and public confidence in these disclosures. Form SD disclosures are also unique because they are standardized, and the SEC issues guidelines to companies on how to disclose conflict minerals information using Form SD

¹¹ See <http://www.sec.gov/about/whatwedo.shtml>

(see Exhibit 1). Finally, Form SD disclosures are NOT part of the CSR report and the timing of its publication does not coincide with the publication of company's financial statements and CSR reports. Information on Form SD should therefore be less noisy and less likely to be confounded by other information that is part of the financial statements or company's CSR reports. Furthermore, since the release date of Form SD disclosures is different from the release date of the financial statements (10-K and 10-Q) and CSR report, it makes it possible to isolate the effect of human rights disclosures from the effect of other non-financial disclosures in the financial statements or CSR reports.

These unique characteristics of Form SD disclosures provide the opportunity for this study to contribute to the empirical literature by exploring one single aspect of CSR - disclosures of corporate human rights performance. This study narrows the focus to the latter because of the shortcomings of CSR disclosures, which are mostly voluntary, unaudited and unstandardized (Milne and Gray, 2013). Thus, empirical studies that use a CSR measure based on annual reports typically suffer from methodological problems associated with endogeneity or because researchers are unable to isolate CSR disclosures from other information disclosed in financial statements (Richardson and Welker, 2001; Plumblee et al., 2008). Thus, one motivation for this study is to capitalize on the uniqueness of the mandatory conflict minerals disclosures that are less noisy, and potentially more informative than voluntary CSR disclosures. A second motivation is the current lack of empirical studies on, and hence a poor understanding of, the implications of human rights disclosures for shareholders.

This leads to the first objective of this study, which is to examine the aggregate equity market response to regulatory intervention announcements leading to the passage of the Act on both users

and non-users of conflict minerals. We also examine the equity market response to conflict minerals special disclosures, in an attempt to determine their effectiveness and whether they provide material information to capital markets that will impact corporate human rights performance. Thus, this study helps to answer the question of whether or not investors price human rights risk into their investment decisions. We then examine the determinants of the equity market response for firms with different characteristics, including varying financial reporting costs, human rights concerns, and exploitation of excess rents from conflict minerals sources. Next, We explore early, voluntary disclosures related to corporate attitudes and perceived implications of the Act. Finally, we examine the unique characteristics of firms disclosing conflict minerals information in form SD.

We find that disclosures under the Act are value relevant, in that investors react negatively to events that signal an increase in the likelihood of the conflict minerals legislation being made into law. This result is consistent with the hypothesis that mandatory disclosures under the Act will force companies to reveal information detailing the extent of their exposure to human rights violations, thus providing information to investors about reputational, legal liability, operational, sanction and boycott risk. The results are also consistent with the hypothesis that prior to the passage of the Act, investors were anticipating an increase in compliance cost, and a decline in excess profits.

Next, the study provides information about firms' concerns about the Act, by examining early disclosures of human rights concerns. The majority of the firms in the early disclosure sample express a negative attitude towards the Act. Most firms are concerned about the increase in compliance and production costs and reputation risk.

We find that conflict minerals mandatory disclosures in Form SD that informs investors about the extent of corporate exposure to human rights violation under the Act is associated with negative equity market reaction. The market reaction is more negative and limited to companies that source their minerals from conflict zones, those with human rights violations, and those that fail to disclose the source of their minerals or whether the proceed from their minerals support or benefit armed groups engaged in human rights violations. Interestingly, there is some evidence that companies that source their minerals from non-conflict zones, obtain their minerals from recycled material or scrap and companies that do not support armed groups are associated with positive valuation effect. These results are consistent with the hypothesis that *mandatory* disclosure of corporate exposure to human right violation is associated with an increase in reputational, operational, legal liability, sanction and boycott risk and loss of excess rents. There is no evidence that voluntary human rights disclosures in the annual report and or in the CSR reports provide information to the market, likely because of the noise in such disclosures.

Finally, relative to non-filer firms, there is evidence that companies filing the conflict minerals mandatory disclosures under the Act are characterized by poor human rights performance, lower levels of reputational capital, higher financial reporting costs, higher historical financial performance, lower transparency, larger size, and a greater likelihood of belonging to the Business Equipment industry.

This paper provides preliminary evidence that Form SD is successful in reducing the governance gap that exposes investors to unnecessary sanction, litigation and reputation risk from firms' conflict minerals usage. Given that human rights legislation represents uncharted territory for the SEC that is usually focussed on protecting investors and maintaining efficient capital

markets, this study provides evidence on the effectiveness of the format of the disclosure in the new legislation. That is, investors appear to react strongly to the stand-alone information produced by the flow-chart style, mandatory conflict minerals disclosure. Taken together, the results from the cross sectional analysis of CARs provide an economic justification for companies with poor conflict minerals practices to improve, and avoid the high litigation and sanction costs that will arise if firm are forced to disclose human rights abuses.

This paper makes several important contributions to the research on corporate social responsibility. First, it responds to the call to address the lack of empirical research in the area of human rights disclosures (Elizabeth, 2009). Next, it contributes to the literature by using information disclosed in Form SD, which is a stand-alone form released separately from financial statements and at a different date relative to the release date of the financial statements or the CSR reports, allowing for isolation of the equity market reaction to human rights disclosures from other firm information. Additionally, CSR is a broad area covering topics, such as environmental sustainability, legal liability and supply chain management, which may all have different implications for shareholder value. Another contribution of this paper is that it is the first empirical study that examines the value relevance of one aspect of CSR, human rights disclosures.

This study also contributes to the debate on the usefulness of mandatory versus voluntary CSR disclosure. Prior to the Act, any disclosures of human rights issues were a part of voluntary CSR disclosures in annual or quarterly financial statements or stand-alone disclosures. The prior literature provides mixed views on the informativeness of these voluntary reports. On the one hand Dhaliwal et al. (2011) find that stand-alone CSR reports reduce information asymmetry providing some evidence of a benefit of such disclosures. In contrast, Milne (2013), Milne and Gray (2013),

Moser and Martin (2012) argue that CSR disclosures lack reliability because they are self-serving, not audited and non-standard. One of the problems with these studies is that voluntary disclosure is an endogenous choice by firms. The mandatory disclosure examined in this study produces a different effect from voluntary disclosure because it is an exogenous shock that affects all firms (Farrell and Saloner, 1985; Dye, 1990; Zhang, 2001; Fishman and Hagerty, 2003). Compared to voluntary disclosure, the literature finds that mandatory regulations result in greater information externality, including comparability (Daske et al., 2008; Li, 2010; DeFond et al., 2011; Wang, 2014). The strict reporting requirements of Form SD, which requires firms to use the same flowchart, depicted in Exhibit 1, provide information on the use and source of its conflict minerals, will increase comparability such that investors are able to better compare human rights risk. This paper is therefore able to establish causality relative to studies on voluntary disclosure (Plumlee et al., 2008; Dhaliwal et al., 2011). Additionally, the equity market reaction is estimated around a short window of 3-5 days around the release of mandatory stand-alone reports, which reduces the effects of confounding events and increases the likelihood that the equity market reaction is caused by unanticipated information from the report.

The scope of this study is far-reaching, because the successful implementation of the Act might set precedence for the SEC mandating other types of human rights disclosure beyond conflict minerals and the mining industry¹² (ICAR, 2014).

The paper is organized as follows. Section two describes the connection between the human rights and accounting. Section three is potential contribution of the study. Section four develops

¹² There has been a call for mandated disclosures for the garment industry and mining in the oil sands (SEC, 2009)

testable hypotheses. Section five presents the data and methods of analyses. Section six contains the results. Section seven concludes the paper.

2. Human Rights and Accounting Disclosures

Globalization has increased the size, power and influence of corporations, where large corporations, especially multinational corporations (MNC), have been able to undertake fundamental transformation in order to increase their market reach, share and profitability (Reed, 2011; Sklair, 1995; Bakan, 2004; Korten, 2001; Monbiot, 2001). The power of MNCs has been linked to the size of their economic wealth (Currah, 2000), their capacity to shape the policy agendas of national states and international bodies (Korten, 2001), and their momentous impact (Marsden and Andriof, 1998).

The increased power and reach of MNCs have been paralleled by an increase in the number of human rights violations and growing concerns over the impact of their business activities on human rights (Kinley, Nolan, & Zerial, 2007; Murphy, 2011). The United Nations Development Programme (UNDP) Human Development Report (2000) states that “global corporations may have a significant impact on human rights in their employment practices, in their environmental impact, and in their support for corrupt regimes or their advocacy for policy changes” (UNDP, 2000 p. 79). Byrne (2014) indicates that the attempts to associate CSR with international enforcement of human rights continue to be hampered by the ability of the MNC to shift liability related to human rights violations from itself to national-states, as such, the sovereignty of the nation states is diminishing, and is being transferred to the MNC. Byrne (2014) calls for a regime of global human rights enforcement to be added to corporate adoption of CSR guidelines.

Preuss and Brown (2012) study the prevalence of corporate policies on human rights, which industry sectors are more active in designing human rights policies, and the content of such policies. They find a less than satisfactory engagement across all firms, as 42.8 percent of firms in their sample do not address human rights at all. For those firms with some policies on human rights, the content of such policies is shallow and does not involve initiatives to protect and fulfil human rights.

The increased number of corporate human rights violations raised concerns over corporate complicity in human rights abuses and instigated a business-related human rights debate (Amnesty International, 2005, 2006; Muchlinski, 2009; Ruggie, 2010; The United Nation, 2012) focused on addressing the tension between the corporate pursuits of shareholder wealth maximization, as instituted in corporate governance structures, and firms' human rights performance (Cooper, Coulson, & Taylor, 2011; Sikka, 2011; Whelan, Moon, and Orlitzky, 2009). Furthermore, these concerns caused the United Nations to consider business human rights responsibilities and to explore ways for corporate actors to be accountable for the impact of their activities on human rights. The result of these efforts is the Ruggies' (2008) "Protect, Respect and Remedy" framework on human rights and business.

On 16 June, 2011, the UN Human Rights Council endorsed the Guiding Principles on Business and Human Rights for implementing Ruggie's framework "*... to provide for the first time an authoritative global standard for preventing and addressing the risk of adverse human rights impacts linked to business activity.*" Ruggie's (2008) framework rests on three core principles: the state duty to *protect* against human rights abuses by third parties, including businesses, the corporate responsibility to *respect* human rights, and the need for more effective access to *remedies*

(p. 4). These Guiding Principles have far reaching implications for all businesses, both small and large, and represent one of the most significant developments in corporate governance this century (McPhail, Islam, and Huddle, 2014).

Corporate commitment to social responsibility in general and to human rights in particular, is constrained by the existing corporate legal frameworks, which preclude corporations from voluntarily embracing social responsibility policies that might conflict with shareholder interests (Aras & Crowther, 2008; Lobel, 2006), and as corporate governance framework focuses on the rights of shareholders' wealth maximization, other stakeholder rights including human rights have remained relegated to the areas of voluntary social policies (Horn, 2012). This has created a “**governance gap**”, which has been considered to be responsible for weakening corporate human rights performance (Bakan, 2004; Korten, 1998). The UN Human Rights Council Report by Ruggie (2008) has reported that the root cause of the business and human rights predicament today can be linked to the rise in corporate power and the governance gap created by globalisation (p. 3). Ruggie (2008) states that “the root cause of the business and human rights predicament today lies in the governance gaps created by globalization”, which “provide the permissive environment for wrongful acts by companies of all kinds without adequate sanctioning or reparation. *How to narrow and ultimately bridge the gaps in relation to human rights is our fundamental challenge.*” (Ruggie, 2008, p.3)

In fact, the public has raised their concern on business and morality. Peter(1989) mentions shareholder groups have the tendency to exert pressure on companies to adopt higher ethical standards. From their viewpoint, highly competitive business domain does not mean that a company has reasons to be amoral. Instead, companies have to make profits together with adhering

to an ethical code of business operations. Soll (2014) in his book *The Reckoning* discusses the financial accountability and accounting standard from historical and political perspective by pointing out that firms have to make profit within the law framework. Consequently, the public call for mitigating the governance gap and arousing the awareness for companies to behave morally.

As part of the debate about corporate human rights performance, disclosures of corporate exposure to human rights violation risk, emerges as one of the mechanisms to bridge the governance gap. Islam and McPhail (2011) attempt to explore corporate disclosure practices in relation to human rights and the way the language of human rights is beginning to enter corporate codes and reports. They discuss the development of global corporate disclosure on human rights and the adoption of the International Labour Organisation's human rights standards by major multinational garment retail companies. They conclude that human rights disclosures have found their way into the voluntary disclosures made by multinational garment companies and this emergent discourse on corporate accountability for human rights deserves much more attention from the accounting community than it has received to date. Gallhofer, Haslam, and Walt (2011) explore the relationship between corporate responsibility, human rights and accountability and suggest that the CSR is an obvious place to explore the potential for accounting to serve human rights by disclosing information with regard to corporate activities and practices that violate human rights. Sikka (2011) explores the extent to which annual financial and corporate social responsibility reports could be mobilized to ensure greater corporate accountability for human rights. He observes that conventional accounting and corporate social responsibility reports seem to be unable to respond to the emerging agenda on human rights, however, he states that "*A focus on human rights can reinvigorate accounting, corporate governance and CSR research and can*

help to strengthen democracy, public accountability and provide a better world.”(Sikka 2011,p.825) The debate about CSR disclosures in general and human rights disclosures in particular focuses on the materiality of such disclosures and whether voluntary or mandatory disclosure is the right prescription to tackle corporate human rights violations. Evidence supporting the value of voluntary disclosures are provided by Dhaliwal, Li, Tsang, and Yang (2011) and Dhaliwal, Radhakrishnan, Tsang, and Yang (2012). They examine the benefits associated with the initiation of voluntary disclosures of CSR activities and conclude that initiating companies with superior CSR performance tend to enjoy a subsequent reduction in the cost of equity capital, and attract dedicated institutional investors and analysts. They also find lower absolute analyst forecast errors and dispersions following CSR disclosures.

In contrast, several scholars argue against the value of voluntary disclosures. For example, Milne (1996, 2013), Milne and Gray (2013) note that sustainability reporting in the CSR reports and financial statements remains largely voluntary, non-standard, self-serving, and not independently verified or audited. Further there is no standardized terminology used that can be unambiguously interpreted. Thus, firms are free to choose what is reported, making comparisons across time and firms difficult. They conclude that corporate social and environmental reporting of business sustainability is “haphazard, bizarre, an assemblage of fantasy, or simply a delusional fantasy”. Moser and Martin (2012) indicate that most of the CSR disclosures are voluntary and mostly unverified by an independent third party, and managers may manipulate such disclosures. As such, the voluntary and unverified nature of CSR disclosures raises concerns regarding their reliability and completeness. Furthermore, they indicate that current CSR disclosures do not provide direct data on CSR expenditures or on the profitability of such expenditures. As such, it is

difficult to reliably determine whether CSR activities overall or even specific CSR expenditures increase or decrease firm profitability.

Few studies discuss the value of mandatory CSR disclosures in general and human rights disclosures in particular. Ioannou and Serafeim (2012) indicate that the current mandatory CSR reporting requirements are quite limited and do not appear to be strictly enforced. As such, any conclusions that are reached under the very limited mandatory CSR requirements that exist may be quite different from those reached under more complete mandatory CSR reporting requirements. Bushee and Leuz (2005) examine the economic consequences of a regulatory change mandating companies listed on the OTC bulletin board to comply with the reporting requirements under the 1934 Securities Exchange Act. The change increases mandated disclosures for firms previously not filing with the SEC. They report that mandatory disclosures result in significant costs for smaller firms. However, the SEC mandatory disclosures have significant benefits. Firms that previously file with the SEC experience positive equity returns and permanent increases in liquidity. This suggests positive externalities from regulatory mandated disclosures. For new compliant firms, they exhibit significant increases in liquidity which is consistent with improved disclosures reducing information asymmetry. Bernaz (2013) proposes the adoption of extraterritorial measures by states to prevent and redress violations of human rights committed by companies outside their country of incorporation. Such measures may include the introduction of regulation to force companies to report on the social impacts of their operations and those of their subsidiaries abroad, or through direct exercise of extraterritorial jurisdictions. Bernaz (2013) suggests that such measures may have a positive impact on corporate human rights records and enhance corporate accountability.

This overview of the relationship between human rights and business can be concluded as follow: (1) globalization has increased the power and influence of corporation and this increase is accompanied by an increase in human rights violations mainly by MNCs, (2) the issue of whether or not MNCs engage in human rights violations is settled with ample of evidence pointing to corporate engagement in human rights violations. The main question is how to hold corporations accountable for the impact of their activities on human rights, (3) the root cause of the business and human rights predicament today is the governance gaps created by globalization which provide a permissive environment for wrongful acts by companies without adequate sanctioning or reparation, (4) the value of voluntary CSR disclosures in general and human rights in particular are questionable because these disclosures are voluntary, unaudited, non-standard, noisy, self-serving, and subject to management manipulation, (5) there is a scarcity of research in the accounting and finance community about corporate engagement in human rights violation and (6) To the best of my knowledge, there is no empirical published research that has examined the impact of mandatory disclosures of corporate exposure to human rights violations. This study tries to fill this gap in the CSR literature.

3. Contributions of the Study

In this section, we discuss the unique contributions that this paper makes to the literature. Specifically, we discuss how the analysis of the regulatory timeline sample, and the early and mandated disclosure samples contribute to the literature.

3.1. Aggregate Equity market response to Regulatory Intervention Timeline

The Act is an unprecedented piece of legislation and it is the first of securities regulation of social criteria¹³ directly aimed at human rights¹⁴. The Act seeks to eliminate funding to armed groups engaged in human rights abuses by requiring companies using conflict minerals to make special disclosures in their filings with the SEC. These requirements are the first generation of socially responsible issues to be directly regulated by the SEC (Drimmer & Phillips, 2011)

The fundamental theoretical premise of Section 1502 is based on the theoretical framework of “information forcing” rules which focuses on transparency and the devolution of information to interested parties, including citizens, regulators, and NGOs (Karkkainen, 2000). The idea is to move information from the entity best situated to hold or obtain information, the corporation, to the entity most likely to use it for the protection of public interests, civil society and regulators. (Ochoa & Keenan, 2011)¹⁵. Information-forcing, in the form of mandatory disclosures is associated with compliance costs and disclosures of certain risk information such as exposure to human rights violation risk, reputational risk, operation risk, legal liability risk, among others; as such, the Act can be viewed as a new mechanism to compel corporations to play a role in protecting human rights by means of raising the cost to companies of violating those rights.

¹³ The Dodd-Frank Act does not represent the first instance of securities regulation of social criteria. In early 2010, the SEC voted to issue interpretive guidance to companies on reporting the impact of climate change on their business (see John M. Broder, “S.E.C. Adds Climate Risk to Disclosure List,” *The New York Times*, January, 28, 2010, at B1.)

¹⁴ Another provision of the Dodd-Frank Act notable of “social criteria” is Section 1504, which require certain disclosures of payments made to governments for the commercial development of oil, natural gas or minerals. Given that human rights abuses often are committed by the governments of countries with hydrocarbon and/or minerals wealth, Section 1504 also bears indirectly on human rights.

¹⁵ This approach suggests that firms “almost always know much more than the government about the risks associated with their products, technologies and processes” (Coglianese et al., 2004)

This unprecedented legislation and the SEC rulemaking that followed have inspired heated debate between those who view these efforts as a costly blunder and those who view them as a measured response to human-rights abuses committed by armed groups that control many of the mines in the DRC (Schwartz, 2015).

Advocates of the legislation, including human rights advocates, socially responsible investment groups, and pension funds argue that: 1) the reason for using securities law such as the Act is the ineffectiveness of existing mechanisms for corporate accountability which are voluntary and lack monitoring and enforcement mechanisms, while securities laws, such as the Act, have more teeth and are tied to corporate laws (Sarfaty, 2013). Furthermore, existing voluntary disclosure does not provide sufficiently quantified and detailed information to determine company's exposure to such risk. 2) The benefits of using the Act is that it raises the profile of human right related issues, establishes their link with company's financial performance, and facilitates more efficient compliance. 3) Disclosures via Form SD will aid investor's risk analysis and help strengthen markets, and due diligence is necessary to assess and mitigate companies human rights risk exposures. 4) The Act will protect investors by requiring a high level of disclosure throughout the company's supply chain, thereby allowing investors to evaluate supply chain policies and practices, make company to company comparisons, and calculate the level of risk associated with conflict minerals sourcing (TAM, 2010), and 5) the mandatory disclosures under the Act will expose the potential reputational and financial risk of companies unknowingly sourcing conflict minerals, thereby funding the humanitarian crises in the DRC, (Sarfaty, 2013).

From the Opponents perspective, mainly companies and trade organization, the first and most important concern is the financial cost of compliance, which the SEC has estimated to be at least

\$3-4 billion in initial compliance costs, and \$200 to \$400 million in ongoing compliance costs (SEC, 2012). A second concern is the absence of a definition for what supply chain due diligence entails, as well as the scope and substance of the auditing process. Finally, some companies fear that the legislation will damage their competitive position with foreign competitors and may impact their business relationships with the countries in which they operate. For example, private and foreign companies would not have to bear compliance costs; moreover, disclosure laws may place a company in breach of contract of host government laws, thus putting the company at a competitive disadvantage (API, 2012). Furthermore, corporations argue that the Act does not benefit investors, and they are concerned that the SEC is straying away from its mission and that any benefit to shareholders is outweighed by the considerable compliance costs borne by companies (Lynn, 2011).

Given such a division among stakeholders, it is clear that the answer to the question of whether the Act provides material information is an empirical one. This leads to the first objective of this study, which is to examine the aggregate equity market response to regulatory intervention announcements leading to the passage of the Act on both users and non-users of conflict minerals. The results of the study will help to answer the question of whether the Act provides material information to investors, its effectiveness, and the effectiveness of the SEC in the new rule of legislating human rights disclosures. This is the first contribution of the study.

3.2. Impact of Mandatory Disclosures in Form SD

As mandated by the Act, if the company is deemed to be a user of conflict minerals, then it must file Form SD (special conflict minerals disclosure form) and conduct a reasonable country-of-origin inquiry (RCOI) to determine if the minerals originated from the covered countries, track

and document the source and chain of custody; and include their findings in a public report called the Conflict Minerals Report (CMR). They must also include a description of the measures adopted to exercise due diligence on the conflict mineral's source and chain of supply. As a part of firms' due diligence process, the Act requires an independent private sector audit of firms' Conflict Mineral Report. If, after reasonable inquiry, results show that the issuer's conflict minerals did not originate from any of the covered countries, the issuer is required to document the processes it undertook to arrive at this conclusion. In the event a firm determines the origin of its minerals to be one of the covered countries, the firm is required to submit a CMR. This requirement holds same for issuers that are unable to conclude that their conflict minerals did not originate from one of the covered Countries, that is they elect to exercise the "DRC conflict undeterminable" option. A company that manufactures products, or contracts for products to be manufactured, that are "DRC conflict undeterminable," must disclose the steps taken to mitigate the risk that its necessary conflict minerals benefit armed groups.

The disclosure requirements by the Act are special and uniquely different from other disclosures of CSR published as part firms' financial statements, in several ways:

- The Form SD disclosure may be precedential, in that it is the first mandatory disclosure by the SEC that deals with corporate human rights violations. As such it may provide an example for similar legislation and approaches to regulate social criteria through US securities laws. It also could be extended to other conflicts and other products and even to human rights impacts that do not involve conflict at all (Drimmer & Phillips (2011). This suggest that the Act may have larger significance and more far reaching implications that goes beyond conflict minerals for the following reasons: (1) Within the context of human

rights, the Act represents a meaningful step in the development of mechanisms to ensure that corporations respect human rights, and transform reporting on such activities from being voluntary to a mandatory legislative mandate that has behind it the enforcement power of the SEC, the most powerful regulatory body in the U.S. corporate context. (2) The Act is already part of a growing generation of U.S. securities laws regulating CSR issues, for example, Section 1504 of the Dodd-Frank Act, requires certain disclosures of payments made to governments for the commercial development of oil, natural gas or minerals. As such, the Act represents a legislative mandate for transparency, and (3) There is every reason to expect the SEC regulation of CSR to continue. The enactment of the Act represents a model that can be applied more broadly by advocates of CSR. The US Congress, having enacted the legislation, has a precedent at hand for similar issues, and as the SEC learns how to play a role in enforcing human rights norms, it will gain the institutional knowledge required to expand beyond the DRC conflict minerals context.

- Form SD disclosures need to be audited by external independent auditors, which make them less subject to management manipulations and should increase the credibility and public confidence in such disclosures.
- SD disclosures are standardized disclosures, and so the SEC issues guidelines to companies on how to disclose conflict minerals information via Form SD (see Exhibit 1).
- Form SD disclosures are NOT part of the CSR report and the timing of their publications do not coincide with the publication of companies' financial statements and CSR reports. This makes it less noisy and less likely to be confounded by other information that is part of the financial statements or company's CSR report.

Several studies question whether any voluntary corporate reports disclosed in the CSR or in the financial statements, can address or capture true corporate social performance or the value of corporate social self-reporting itself. Milne (2013, 1996) and Milne and Gray (2013) note that sustainability reporting in the CSR reports and financial statements remains largely voluntary, non-standard, self-serving, and not independently verified or audited. Further there is no standardized terminology used that can be unambiguously interpreted. Thus, firms are free to choose what is reported, making comparisons across time and firms difficult. They conclude that corporate social and environmental reporting of business sustainability is haphazard, bizarre, an assemblage of fantasy, or simply a delusional fantasy.

The unique characteristics of Form SD disclosures gives the opportunity to contribute to empirical literatures on CSR by exploring a new domain focused on the study of corporate disclosures and corporate human rights performance, and along this line, to examine the equity market response to conflict minerals special disclosures, which will help to determine their effectiveness and whether they provide material information to capital markets that will impact corporate human rights performance. This represent the second contribution of the study.

3.3. The determinants of the Equity market response

The main thrust of conflict minerals regulation is to provide a mechanism to compel corporations to play a role in protecting human rights by means of raising the cost to companies that violate those rights. Forcing companies to disclose their use of conflict minerals is associated with compliance costs and disclosures of certain information revealing the extent of firm's exposure to human rights violation risk, which incorporates a reputational risk (through naming and shaming), operational risk, legal liability risk, and sanction risk, among others. While the

equity market response to conflict minerals disclosures provide an aggregate assessment of the valuation effect and the market assessment of how investors perceive such disclosures, it is essential to determine whether the change in value is driven by 1) financial reporting and compliance costs concerns, 2) the revelation of new information about the extent of firms' exposures to human rights violation risk, and 3) the expected loss of excess rents derived from sourcing "cheap minerals" mined under conditions of human right abuses, among other factors. This leads to the third contribution of the study, which is to examine the determinants of the equity market response to conflict minerals disclosures and attempts to differentiate between different hypotheses with regard to the impact of the Act.

3.4. Early-Voluntary vs Mandatory Disclosures

This study contributes to the debate about the informational value of voluntary versus mandatory conflict minerals disclosures. On the one hand, several prior studies provide evidence of benefits to voluntary disclosers through reduced cost of capital and lower information asymmetry (Dhaliwal, et al., 2011 and Dhaliwal et al., 2012). On the other hand, there is evidence that these general benefits might not extend to voluntary disclosures of conflict minerals information embedded within CSR reports. The information content of these early disclosures may be compromised due to their non-standard, unaudited nature (Milne, 1996 & 2013, Milne and Gray, 2013). Given that there is no standardized reporting format, or independent verification of the information, managers may use these reports in a self-serving manner such that the quality of the information may be poor (Moser and Martin, 2012). Besides the potentially poor quality of the information discussed above, it is hard to isolate the equity market reaction that is specific to conflict minerals because it is disclosed with unrelated news about other CSR activities.

Given these conflicting views about the quality of early conflict minerals, and to provide evidence on the informational value of the two types of disclosures, we examine the equity market reaction to voluntarily disclosed conflict minerals information of 542 firms as a part of their CSR reports in annual (10-K) or quarterly (10-Q) financial reports before May, 31, 2014, the deadline for the submission the mandatory Form SD to the SEC. Many of these firms used this disclosure forum to express their opinions about the implications of the forthcoming bill. Using the same methodology, we are able to compare the equity market reaction of such early disclosures to the equity market reaction of the mandatory disclosure in Form SD to provide evidence on the relative informativeness of the two types of disclosures. This approach provides information about the format of presenting CSR disclosures.

4. Testable Hypotheses

In this section we develop testable hypotheses regarding (1) the aggregate equity market reaction to regulatory events leading to the passage of the Conflict Minerals Act. (2) the equity market reaction to mandatory disclosures regarding conflict minerals using the mandated Form SD specialized report, and (3) the equity market reaction to early voluntary disclosures of conflict minerals use. We also examine the equity market reaction conditional on specific risk factors.

4.1 Regulatory Intervention Timeline of the Conflict Minerals Act

Since the initial introduction of the Congo Conflict Minerals Act of 2009 by Senator Sam Brownback there have been several events relevant to the final passage of the Act in 2010. Appendix A provides a timeline and details of each of these events. Each event provides incremental information to investors about the likelihood of success or failure of the bill, which in turn has different implications for firms depending on the extent of their exposure to conflict

minerals. We therefore focus on the aggregate equity market response to all of these events in assessing whether the market views the bill as enhancing or destroying shareholder value. We isolate those events that were relevant to the Conflict Minerals Act, and so were not confounded by unrelated disclosures. We predict that investors anticipate that compliance with the bill will increase firms' cost of compliance or force companies to reveal information that may increase legal liability, reputation risk, operation, and sanction and boycott risk, and we expect a negative aggregate equity market reaction to relevant events leading up to the passage of the Act. Furthermore, we predict that the strength of the equity market reaction is dependent on the importance of conflict minerals to firms' operations. We expect a more negative aggregate equity market response for companies which rely heavily on conflict minerals because of the greater risks and costs associated with compliance.

H1: There will be a negative equity market reaction to regulatory announcements/events that signal the likelihood of the passage of the Conflict Minerals Act, which will be more negative for heavy users of conflict minerals.

4.2. Special Disclosures of Conflict Minerals Information in Form SD

The Act dictates that, irrespective of their fiscal year end, all affected companies have to file Form SD, the Specialized Disclosure Report, for the first time by May 31, 2014 for the calendar year 2013, and by May 31 of each year thereafter. The SEC outlines a three-step process that firms have to follow in order to comply with the rule. First, firms must determine if the rule applies to them. Affected companies are all U.S. publicly traded companies, or foreign owned companies that report to the SEC and who use conflict minerals because it is "necessary to the functionality or production of a product" the company manufactures or contracts to manufacture. Next, firms

must conduct a reasonable country of origin inquiry (RCOI) and file Form SD with the SEC, Finally they must complete, audit, and attach a CMR to Form SD, if it is required. Firms are exempt from completing a CMR only if conflict minerals were used prior to January 31, 2013, if conflict minerals are used only from recycled or scrap sources, or if the firm contracts to manufacture a product but has no input or influence over its design or composition. The CMR must include a due diligence section, that describes the steps the firm took or is taking to exercise due diligence on the source and chain of custody of conflict minerals, and steps taken or to be taken to mitigate the risk that armed groups benefit from its conflict minerals. See Exhibits 2 and Exhibit 3 for an example of a completed Form SD and CMR report for Intel Corporation and Veeco Instruments Inc.

The standardized format of the mandated disclosure significantly increases the transparency about the use of conflict minerals and the origin and circumstances surrounding the supply chain of these minerals. As a form of mandatory disclosure of human rights performance the disclosures required by the Act serve to level the playing field between firms that use the cheaper conflict minerals and firms that pay a premium to use certified sources. As such, the new regulation is a disciplining mechanism that limits the excess rents that firms can obtain at the expense of human rights, so that they are forced to consider alternative certified sources or to take action to certify the existing ones. Since all companies that use conflict minerals must file Form SD, but not necessarily the CMR report, the new rule as implemented has the potential to provide new information to investors on the risks associated with conflict minerals use. We hypothesize that mandatory disclosure of corporate exposure to human right violation is associated with an increase in reputation, operational, legal liability, sanction and boycott risk and loss of excess rents generated from sourcing “cheap minerals” mined under conditions of human rights abuses. We

predict a negative equity market reaction to the release of Form SD reports that indicate that firms use conflict minerals in their operations.

H2a: Conflict minerals mandatory disclosures informing investors about the extent of corporate exposure to human rights violation under the Act will be associated with a negative equity market reaction.

If Form SD discloses that a firm obtains minerals only from certified sources, investors will assess that the firm acts ethically and expect no costly audit procedures or increased investment risk. However, firms that disclose that they use minerals from the covered zone will incur additional costs to conduct supply chain due diligence and to comply with the Act. They will also lose any price advantage from the cheaper minerals and be subject to legal liability, and sanction, operational and reputational risk. Similarly, if Form SD and the included CMR report reveal information that a firm supports armed groups, investors will likely assess higher audit and compliance fees, and higher human rights violations risk. The equity market will price these additional risks such that the equity market reaction will be negative for firms that source minerals from the conflict zone or support armed groups.

The SEC has allowed a grace period until 2016 during which firms can indicate “DRC conflict undeterminable” as the source of their conflict minerals, which constitutes non-disclosure. However, because the prior research argues that investors cannot distinguish between bad news and non-disclosure (Verrecchia, 1983; Skinner, 1994), we anticipate that investors will assess increased audit costs and legal liability for non-disclosers and predict a negative equity market reaction for firms that elect to use the “DRC Conflict undeterminable” option.

H2b: The equity market reaction to the disclosure of Form SD will be more negative for firms that source minerals from the covered zone, firms that support armed groups, and firms that file as “DRC Conflict undeterminable”.

4.3. Cross-Sectional Regression

While the overall equity market reaction to disclosures in Form SD and CMR report is expected to be negative, it is not known what specific risk factors drive investor response. In this section we address some of the concerns raised by firms about the Act by performing cross sectional analyses to differentiate between the human rights concerns and the financial reporting costs arguments, and to determine whether the equity market response is influenced by increased risk (legal liability, reputational, sanction and boycott risk), firm performance, information asymmetry and industry and size effects.

If the disclosures provide information to help investors assess the potential effects of the conflict minerals rule, we expect a negative equity market reaction to mandatory disclosure by firms for whom implementation of the act is most costly: i.e. firms with human right concerns, firms sourcing minerals from conflict zones, firms, where the proceeds from conflict minerals support armed groups, facing higher sanction risks, firms with high audit costs, firms whose profitability and financial reporting quality is dependent on obtaining the cheaper conflict minerals, firms with greater information asymmetry and firms more likely to use conflict minerals because of their industry.

4.3.1. Human Rights Violation Risk.

To proxy for human rights violation risk, we utilize the following five variables:

a. Human Rights Performance (HRCO_N): KLD's Global Sustainability Index is a socially responsible investing and sustainability index that reflects the degree to which a company addresses current social and environmental needs without sacrificing the quality of life of future generations. Corporations that score high on the KLD index are strong stewards of the environment, advocates of local and global communities, and promoters of high labor standards for their employees and those in their supply chain, and producers of high quality and safe products. These firms behave ethically in their business endeavors. Many of the dimensions along which firms are evaluated for the KLD score are voluntary actions and/or disclosure of corporate social responsibility activities. For example, the human rights sub-category assigns high scores for firms that establish relations with indigenous peoples and who demonstrate transparency in their disclosures of human rights issues. Adhering to these ethical behavioral practices will preclude a firm from sourcing minerals from the covered zone and supporting or contributing to human rights abuses, given that there are ample sources of minerals in non-covered zones (AIA, 2014). Appendix B, for example, reports the Conflict Minerals worldwide production, and shows the DRC production relative to the worldwide production, the total revenue generated from DRC minerals in millions of US dollars and the amount which fund DRC conflict. Not only is the DRC not a top producer of conflict minerals, but more than half of its revenue from those sources fund armed groups.

We predict that firms with poor human rights performance in the past, as reflected in the number of human rights concerns (*HRCO_N*), will be more likely to have a negative equity market reaction to disclosure of Form SD.

*b. Reputational Capital (**REPUT**):* The Fortune Magazine's List of Most Admired Companies is based on the results of a survey of industry executives, directors, and securities analysts. Firms with high corporate reputations, such as those named to the Fortune list enjoy increased corporate worth and the reputational capital view predicts that a positive reputation will result in long-term competitive advantages for firms (Klewes and Wreschniok, 2010). Firms that have invested time and resources into cultivating a high reputational capital will be less likely to risk this reputation by engaging in activities that violate human rights concerns. This is especially true for highly visible issues such as conflict minerals, which has emerged as a new hot-button topic for many industry and international groups leading efforts to address the issue of funding violence in the DRC¹⁶. We predict that firms with high reputational capital will have a less negative equity market reaction to disclosure of Form SD.

*c. Sanction and Boycott Risk (**SANCTION**):* The states of California, Maryland and Florida have implemented a policy against offering government contracts to firms with interest in the conflict zone. These strict sanctions (not to grant government contracts to companies who source its minerals from conflict zones) against human rights violations should result in more negative equity market reaction for firms incorporated in these states filing Form SD.

*d. Conflict Zones (**CZONE**):* Companies that disclose in their CMR that they source their minerals from conflict zones are associated with higher exposure to human rights violation risk and thus more negative equity market reactions. *CZONE* is an indicator variable equal to 1 if the company

¹⁶ For example, Electronic Industry Citizenship Coalition (EICC) and the Global e-Sustainability Initiative (GeSI) developed the Conflict Free Smelter Program, which helps compliance efforts by listing compliant smelters and Solutions for Hope, created by Motorola, is a pilot initiative to source conflict-free tantalum from the DRC. Nokia, RIM, Intel, Motorola and HP are some of the companies that signed on to participate.

disclose in its Form SD that it sources minerals from the conflict zone and zero otherwise. Thus, a negative relationship is anticipated between *CZONE* and the announcement period *CAAR*.

e. *Armed Groups (ARMGRP)*: Companies disclosing that the proceeds from conflict minerals support armed groups that engage in human rights violations will be exposed to a higher degree of human rights violation risk, and hence, a more negative valuation on the announcement date. No companies in the sample disclose that the proceeds from their conflict minerals support armed groups, however, they disclose that after RCOI they find that either 1) the proceeds do not support armed groups or 2) they are not able to determine whether or not the proceeds support armed groups, that is they choose “DRC Conflict Undeterminable”. *ARMGRP* is an indicator variable equal to 1 if the company discloses in its Form SD that the proceeds from its conflict minerals do not support armed groups. Companies that disclosed in Form SD that their conflict minerals do not support armed groups are more likely to have less exposure to human rights violations risk, as such, will be associated with a positive (less negative) equity market response. We anticipate a positive relation between *ARMGRP* and *CAAR*.

In summary, we predict a negative equity market reaction for firms that obtain minerals from the covered zone or support armed groups, for firms with a history of human rights violations, as reflected in low KLD indices, and for firms incorporated in states which sanctions companies which source their minerals from conflict zones, since the market will assess higher likelihood of involvement in conflict minerals, and hence higher investment risk for these firms. Conversely, firms with higher reputational capital, such as firms on Fortune’s list of most admired companies will be less impacted by the new regulation since the market will assess little change to their investment risk.

H3a: There is a negative equity market reaction for firms that obtain minerals from the covered zone or support armed groups, for firms with a history of human rights violations, as reflected in low KLD indices, and for firms incorporated in states which sanctions companies which source their minerals from conflict zones, and a positive (less negative) reaction for firms with higher reputational capital.

4.3.2. Financial Reporting Costs, Financial Performance and Financial Reporting Quality

a. *Financial Reporting Costs (TAFEES)*: Firms that use conflict minerals are required to conduct a reasonable country of origin inquiry to determine whether any of the conflict minerals originated in the DRC or an adjoining country, or are from recycled or scrap sources. Depending on the determination from this inquiry, a company may be further required to conduct extensive supply chain due diligence in accordance with the SEC's rules. Furthermore, companies have to undertake audit and certification requirements, which include obtaining an independent private sector audit for its CMR, including the audit report as a part of the CMR and identifying the auditor. Firms with already high financial reporting costs will incur even greater costs to comply with the new Act. We use total audit fees as a proxy for financial reporting cost, and predict that firms with higher financial reporting costs will be more likely to have a more negative equity market response to disclosure of CMR.

b. *Financial Performance (FPSCORE) and Financial Reporting Quality (FRQ)*: Companies with superior financial performance are less likely to be impacted by the additional costs of compliance and more capable to weather additional risks associated with conflict minerals disclosures. We use a factor score from several financial performance indicators and predict that firms with higher financial performance score to be associated with less negative (more positive) equity market

response to CMR disclosures. Similarly, firms with high financial performance will have less need to use accounting accruals to cover up poor performance. The proxy used for *FRQ* is a measure that assesses the quality and degree of accrual-based earnings management. It is calculated using the Jones (1991) Model as modified by Kothari et al. (2005). Higher estimated values from the adjusted Jones Model (*AJONES*) indicate lower *FRQ*. We predict a positive equity market response to CMR disclosure and financial reporting quality.

H3b: The equity market reaction to the disclosure of Form SD will be more negative for companies with higher financial reporting cost as evident by higher audit fees and more positive (less negative) for firms with higher financial performance and financial reporting quality.

4.3.3. Information Asymmetry (*SPREAD*)

Firms that use conflict free minerals can more easily disclose information about where they source raw materials. Their disclosure requirements are also much lower than firms using conflict minerals that must conduct extensive supply chain due diligence in accordance with the SEC's rules. Less transparent companies are less likely to voluntarily disclose information about their engagement in human rights violations. However, mandatory disclosures on Form SD will force less transparent companies to reveal more information about the extent of their exposure to human rights violations. We predict that firms with lower transparency and hence high degrees of information asymmetry as reflected in high bid-ask spreads, will have a more negative equity market response to the release of the mandatory report. Thus, the equity market reaction to the disclosure of Form SD will be more negative for firms with high information asymmetry and a negative relation is anticipated between *SPREAD* and the *CAAR*.

4.3.4. Control Variables

Firms in the technological industries are more likely to use conflict minerals and hence file Form SD. We predict that firms in industry groups 6 and 7 based on the Fama-French 12 industry classification will be more likely to file Form SD and indicate that they source minerals from the conflict zone and they are expected to have a more negative equity market reaction to the disclosure of the CMR reports, hence, a negative relation is anticipated between *INDUST* and the *CAAR*.

Similar to firms with higher financial performance, larger firms are better able to weather the higher costs of compliance with the Act. Larger firms have the advantage of economies of scale in terms of financial reporting costs. We predict that larger firms will be more likely to have a less negative equity market reaction to disclosure of the CMR because they bear relatively lower risks and compliance costs. As such, we anticipate a positive relation between *SIZE* and *CAAR*.

4.4. Early Disclosures of Conflict Minerals Information

While compliance with the Act became mandatory only after 2014, some firms voluntarily disclosed information regarding conflict minerals use as a part of their CSR reports in annual (10-K) or quarterly (10-Q) financial reports. Many of these firms used this disclosure forum to express their opinions about the implications of the forthcoming bill. For example, some firms indicted that the Act would increase their exposure to legal liability, reputational or operational risk, or that compliance and production costs would increase. Other firms expressed concerns over supply limitations, increase in prices and reduced profitability or the difficulty in verifying conflict minerals sources and supply chains. If the disclosures provide information to help investors assess the potential effects of the Act, we would expect a negative equity market reaction to voluntary disclosure by firms that express a negative opinion of the Act or that indicate that its passage would

increase costs, risk, legal liability or decrease profitability. However, the direction of the equity market reaction to the voluntary disclosure of conflict minerals use in CSR reports is unclear. On the one hand, the prior literature provides evidence of benefits to voluntary disclosers through reduced cost of capital and lower information asymmetry (Dhaliwal et al., 2011) and Dhaliwal et al., 2012). On the other hand, there is evidence that these general benefits might not extend to voluntary disclosures of conflict minerals information embedded within CSR reports. The information content of these early disclosures may be compromised due to their non-standard, unaudited nature (Milne, 1996 & 2013, Milne and Gray, 2013). Given that there is no standardized reporting format, or independent verification of the information, managers may use these reports in a self-serving manner such that the quality of the information may be poor (Moser and Martin, 2012). Besides the potentially poor quality of the information discussed above, it is hard to isolate the equity market reaction that is specific to conflict minerals because it is disclosed with unrelated news about other CSR activities. Given the conflicting views about the quality of early conflict minerals disclosures and the confounding information at the time of its release, we do not make a formal prediction on the equity market reaction to these early disclosures.

H4: The equity market reaction to early disclosures of conflict minerals information released in CSR reports could be positive or negative.

5. Data and Method of Analysis

The data of this study consists of three samples: (1) the regulatory intervention timeline sample, (2) the special disclosures of conflict minerals in Form SD sample, and (3) the early disclosure sample. To estimate the equity market response to conflict minerals information disclosure the study apply the Fama and French (1997) three-factor model as the abnormal returns generating

process. Furthermore, to examine the determinants of the equity market response and to differentiate between different hypotheses we estimate a cross-section regression model where the three-day announcement period CAAR is the dependent variable, model specification and the expected direction of each independent variable are depicted in Table 7. To examine the main characteristics of disclosing firm relative to non-disclosing, we estimate a logistic regression model which is depicted in Table 9. A detail explanation and definition of the variables utilized in this study, the source of each variable, and the time period involved is provided in Appendix C. The following is a detailed explanation of the three samples, estimate of the announcement period CAAR, the cross-sectional, and the logistic regression models.

5.1. Regulatory Intervention Timeline Sample

An early version of the Act was originally proposed in May 22, 2008 by Senators Samuel Brownback and Richard Durbin to the Senate Finance Committee as a bill called “The Conflict Coltan and Cassiterite ACT of 2008” which become part (Section 1502) of the Dodd-Frank Wall Street Reform and Consumer Protection Act in July 21, 2010. The final rule was adopted by the Securities and Exchange Commission (SEC) in August 22, 2012 which requires companies to publicly disclose their use of conflict minerals that originated in the DRC and adjoining countries. Although the passage of the Dodd-Frank Act (including Section 1502) involved a process with considerable discussion, we focus on 16 specific events between 2008 and 2012 that we assess to represent the regulatory events which led to the conflict minerals mandate.

We identified the events by searching the *Dow Jones News Retrieval* and search engines such as Google and Yahoo, among others, using the terms “Conflict Minerals”, “Minerals in Conflict Zones”, and “Dodd-Frank Section 1502”. We identified the events that had the greatest effect on

the likelihood of the Conflict minerals rule adoption. Events that simply confirmed an earlier event were eliminated. Furthermore, for each event, we searched the *Wall Street Journal* and other search engines for any confounding major events over the three-day window, from day $t-1$ through day $t+1$ relative to the event day t_0 . Appendix A provides a list of these events, and its content followed by any confounding news associated with each event if any.

To examine the equity market response around the conflict minerals regulatory events timeline, we construct a sample of firms which includes all publicly traded US-listed companies with returns data on the CRSP (Center for Research on Security Prices) database and financial statement information on the COMPUSTAT database over the period January 1, 2007 through July 1, 2014. These criteria produced a sample of 5,855 firm-year observations. We deleted financial institutions (1,438 firms) and firms with missing returns (777 firms) to obtain a final sample of 3,640 firms. Based on industry classification, product line description, and a map provided by the Ministry of Agriculture, Forestry and Fisheries (MAFF), we placed each firm into one of three categories, based on their utilization of conflict minerals: Heavy users (1,505), Medium users (454), and No users (1,681).

We estimate the equity market reaction for the total sample and for each group, as the abnormal stock return around each of the 16 events using the Fama-French (1993) three-factor model as the return-generating process. This model simultaneously controls for firm size and the differential-risk factor between firms with high, versus low, market-to-book ratios. The average abnormal return (*AAR*) is calculated using an *OLS* regression using 150 daily returns from trading day $t = -210$ through trading day $t = -61$, relative to the press release date. The *AAR* for event date t is calculated as a simple cross-sectional average over the number of firms in the sample (N). The

event window is the three-day period (t_{-1} to t_{+1}) cumulative average abnormal return (*CAAR*) and it is expected to capture the equity market reaction associated with the conflict minerals regulatory timeline. Both the rank z-test (*RTEST*), as developed by Corrado (1989), and the jackknife z-test (*JNTEST*) developed by Giaccotto and Sfiridis (1996) are utilized to test for the level of significance of the *AARs* and the *CAARs*.

5.2. Special Disclosures of Conflict Minerals (Form SD) Sample

Under Section 1502 of the Dodd-Frank Act, SEC registrants, including domestic, foreign, and smaller reporting companies, are required to file Form SD under Rule 13p-1, if applicable, beginning May 31, 2014 (for the 2013 calendar year) and annually on May 31 every year thereafter. Form SD will disclose the filer's use of conflict minerals originating from the DRC or an adjoining country provided the conflict minerals are "necessary to the functionality or production" of a product manufactured or contracted to be manufactured by the filer. Furthermore, companies are required to publicly disclose information each calendar year on the source of tantalum, tin, gold, and tungsten, and the chain of custody.

Among the requirements on Form SD: (1) Firms must provide a description of the measures taken to exercise due diligence on the source and chain of custody of conflict minerals. (2) Firms must file a statement that the company has obtained an independent private sector audit of the CMR. (3) A company that manufactures products, or contracts for products to be manufactured, that are "DRC conflict undeterminable," must disclose the steps taken to mitigate the risk that its conflict minerals benefitted armed groups. (4) A company must use a nationally or internationally recognized due diligence framework in determining the source and chain of custody of conflict minerals. (5) During the first two calendar years following November 13, 2012 for all companies,

and the first four calendar years for smaller companies, firms will not be required to submit an audit report of its CMR for any products that are “DRC conflict undeterminable.” Subsequently, undeterminable minerals must be described as not conflict-free. The new Form SD, as it pertains to conflict minerals, must be filed on the SEC's EDGAR online database, no later than May 31 after the end of the issuer's most recent calendar year. Exhibits 2 and 3 provide a modified Form SD for Intel Corporation and for Veeco Instruments Inc. respectively.

We searched the SEC filings for the conflict minerals Special Disclosure Form (Form SD) for the final sample of 3,639 firms over the period from January 1, 2014 through September 30, 2014 (the start date of data analysis). The first Form SD and CMR was filed by *Siliconware Precision Industries Co. Ltd.* on April 24, 2014, whose CMR was filed as an exhibit to the Form SD. The search produces 1,154 companies with Form SD filings. We downloaded and read Form SD for each of the 1,154 companies. The search led to the following findings with regard to the covered zone: (a) 191 companies disclosed that their minerals are sourced from conflict zones. (b) 270 companies disclosed that their minerals are sourced from non-conflict zones or obtained from recycled or scrap materials. (c) 677 companies disclosed that they are not able to determine the source of their conflict minerals (Undetermined). (d) 16 companies do not provide information about the source of their minerals.

Furthermore, we searched Form SD to ascertain whether the proceeds from the conflict minerals supported armed groups. We found that (a) 70 companies disclosed that the proceeds do not support armed groups; (b) No company disclosed that the proceeds support armed groups; (c) 795 companies indicated that they were not able to determine if the proceed supported armed groups; (d) For 260 companies, the issue was not applicable since they do not source minerals

from conflict zones; (e) 20 companies provided no information in the Form SD. Table 1 provides a summary statistics of the total sample, the early disclosure sample, and the Form SD disclosure sample.

[Insert Table 1 Here]

5.3. Cross-sectional analysis

To examine the determinants of the equity market reaction to corporate disclosures of human rights violation risk and to differentiate between the different hypotheses explained earlier, we employ the following cross-sectional regression using *CAAR*. We assume that the announcement period *CAARs* associated with Form SD disclosures will reflect the valuation effect due to a firm's exposure to human rights violation risk reflected in the company's mandatory CMR. We proxy for firm's human rights performance, financial reporting costs, financial performance, and financial reporting quality.

$$CAAR = \beta_0 + \beta_1 CZONE + \beta_2 HRCON + \beta_3 ARMGRP + \beta_4 SANCTION + \beta_5 REPUT + \beta_6 TAFEES + \beta_7 FRQ + \beta_8 FPSCORE + \beta_9 SIZE + \beta_{10} SPREAD + \beta_{11} INDUST + \varepsilon;$$

Where: *CAAR* = the three-day period (t-1 to t+1) cumulative average abnormal return around the disclosure date of Form SD.

CZONE = Proxy for human rights violation risk defined as a dummy variable equal to 1 if the company discloses that its minerals are sourced from the conflict zone and zero otherwise.

HRCON = Historical human rights performance measured as the number of concerns minus the number of strengths from the human right section of KLD.

ARMGRP = Proxy for human rights violation risk, defined as a dummy variable equal 1 if the company disclosed in its Form SD that its conflict minerals proceeds do not support armed groups in the conflict zone and zero otherwise.

SANCTION = Proxy for sanction risk, defined as an indicator variable equal to 1 if the company's headquarter is located in the states of California or Maryland, or in St. Petersburg-Florida, and zero otherwise.

REPUT = proxy for corporate reputational risk, measured as a dummy variable equal to 1 if the company is on the list of Fortune's most admired companies, and zero otherwise.

TAFEEES = total audit fees divided by total assets, a proxy for financial reporting costs.

FRQ = the measure of firm's financial reporting quality, calculated using the Jones (1991) Model as modified by Kothari et al. (2005).

FPSCORE = factor score measuring firm financial performance, summarizing 13 measures of book value and market value based measures;

SIZE = log of firm total assets;

SPREAD = degree of information asymmetry measured by firms' bid-ask spread;

INDUST = an indicator variable equal to 1 if the company belongs to the Business Equipment (computers, software, and electronic equipment's) and Telecommunications (telephone and televisions) industry, based on Fama-French 12-industry classification scheme.

5.4. Logistic Regression Analysis

We utilize the following logistic regression to examine the characteristics of reporting companies who file Form SD relative to non-reporting companies, since one objective of this paper is to determine the unique characteristics or factors associated with firms disclosing conflict minerals information in their Form SD. The logistic regression model is given by:

$$\begin{aligned} LOGIT = & \beta_0 + \beta_1 HRCON + \beta_2 SANCTION + \beta_3 REPUT + \beta_4 TAFEES + \beta_5 FPSCORE \\ & + \beta_6 FRQ + \beta_7 SPREAD + \beta_8 SIZE + \beta_9 INDUST + \varepsilon; \end{aligned}$$

Where *LOGIT* is an indicator variable that equals one for companies that filed Form SD and zero for non-filers.

5.4.1. Financial Performance (FP)

Peloza (2009) criticizes previous researchers for employing a single measure of financial performance. In some cases, he argues, these proxies are market-based, while others are accounting-based. In this paper we address this problem by utilizing factor analysis to capture information from several accounting-based and market-based measures often used to represent financial performance in previous studies. The proxy for financial performance is the summary factor score (*FPSCORE*), which is derived from the following 13 variables using data from the Annual and Quarterly North American *COMPUSTAT* database:

1. *ROA*: return on assets defined as quarterly net income (*COMPUSTAT* #45 (*NIQ*)), divided by average assets over the quarter (*COMPUSTAT* #44 (*ATQ*)).

2. *ROE*: return on equity defined as quarterly net income divided by average shareholder's equity. Shareholder's equity is defined as the total liabilities plus shareholder's equity (*COMPUSTAT* #44) minus total liabilities (#54 (*LTQ*)).
3. *ROS*: return on sales defined as quarterly net income (*NIQ*) divided by net sales (*COMPSUSTAT* #2 (*SALEQ*)).
4. *EVA*: economic value added define as earnings before interest and taxes divided by the average of total assets. *EBIT*= operating income after depreciation (*COMPUSTAT* #21 (*OIADPQ*)) + non-operating income (expense) (*COMPUSTAT* #31 (*NOPIQ*)).
5. *EVADA*: economic value added after depreciation and amortization defined as earnings before interest, taxes, depreciation, and amortization (*EBITDA*) divided by average total assets. *EBITDA*=*OIBDPQ*+*NOIQ*; *OIBDPQ*: operating income before depreciation (*COMPUSTAT* #21).
6. *EPS*: earnings per share (basic), including extraordinary items (*COMPUSTAT* #11).
7. *QUAEARN*: a measure of earnings quality defined as the net cash flow from operating activities (*COMPSTAT* #108 *OANCFY*) divided by net income.
8. *TOBQ*: Tobin's Q ratio defined as (Market value + *PSTKQ* + *DLCQ* +*DLTTQ*)/ total assets. Market value = common shares outstanding (*COMPUSTAT* #61) * (*COMPUSTAT* #14), *PSTKQ* is total preferred capital stock (#55), *DLCQ* is the total debt in current liabilities (#45), and *DLTTQ* is total long-term debt (#51).
9. *MVA*: market value added defined as (Market value – Book value of common equity - *DLCQ* – *DLTTQ*). Book value of common equity is the *COMPUSTAT* #59.

10. *EPSG*: earnings growth in *EPS* over the previous quarter.
11. *SALEG*: sales growth over the previous quarter.
12. *RET*: quarterly rate of return, defined as the sum of monthly stock returns over the quarter.
13. *ABRD*: abnormal rate of return calculated as follows: First, the differences between monthly stock returns (*ret*) and value-weighted market returns (*VWRETD*) for each month of the quarter are obtained. Second, we sum the monthly differences from the first step for the quarter. Then, the sum from the second step is divided by the standard deviation of the monthly returns over the quarter.

To obtain a comprehensive, broad-based measure for financial performance, we perform a factor analysis to summarize the information in the 13 financial performance measures.

5.4.2. Financial Reporting Quality (FRQ)

The two most widely-used proxies for *FRQ* in the literature are total accrual quality, based on the modified Jones model (Kothari, Leone and Wasley, 2005) and the modified Dechow and Dichev (*DD*) model (Dechow and Dichev, 2002). Because the *DD* model requires cash flow information from the following accounting period, use of this model significantly reduces the number of observations. Therefore, we have chosen to use the modified Jones model as the proxy for *FRQ*. To test the robustness of the findings, we repeat the analysis using the modified *DD* model.

The proxy used for *FRQ* is a measure that assesses the quality and degree of accrual-based earnings management. It is calculated using the Jones (1991) Model as modified by Kothari et al. (2005). Higher estimated values from the adjusted Jones Model (*AJONES*) indicate lower *FRQ*.

5.5. Early disclosure sample

Using the SEC's Edgar system (www.sec.gov) we searched the 10-K, the 10-Q, and the corporate social responsibility reports (CSR) for each firm in final sample of 3,639 firms for early disclosures related to the corporate response to the conflict minerals legislation. We conducted the search over the period from June 30, 2010 (the date when the US Congress passed the Dodd-Frank Act, including Section 1502) through May 31, 2014 (the first implementation date). The search produced a sample of 455 firms that disclosed information about their attitude towards, and/or their concerns about the expected impact of the Act on their company. The distribution of these attitudes/concerns can be classified into the following 11 categories:

1) *Negative Attitude toward Conflict Minerals Legislation:* These companies express a negative attitude towards the upcoming mandatory Conflict Mineral Disclosure. Such information is disclosed in their annual/quarterly report (e.g. 10-K/Q, 20-F) prior to the mandatory due date of June 2, 2014. For example, Johnson Outdoors Inc. states in their 2013 10-K annual report that: “...Among other things, the implementation of this rule could adversely affect the sourcing, availability and pricing of such materials if they are found to be used in the manufacture of the Company’s products, and this in turn could affect the costs associated with the Company’s products”

2) *Neutral Attitude toward Conflict Minerals Legislation:* These companies disclose information about conflict minerals without expressing either a positive or negative attitude toward the

upcoming legislation. For example, Panasonic Corp. in their 2012 (20-F) financial statements reports: *“Due to an increasing global awareness of CSR values, the Company recently decided to extend its commitment to social responsibility by requiring its suppliers to monitor conflict metal provision.”*

3) *Compliance and/or Production Costs Increase*: These companies express the concern that the Act will increase compliance and/or production costs. As an example, West Marine Inc. in their 2014 financial statements (10-K report) mentions: *“There are costs associated with complying with the disclosure requirements, such as costs related to determining the source of certain minerals used in our products, as well as costs of possible changes to products, processes or sources of supply as a consequence of such verification activities”*.

4) *Reputational Risk*: These companies state that the upcoming conflict minerals disclosures will increase their reputational risk. As an example, Xilinx Inc. in their 2014 financial statements states *“We may face reputational challenges if we are unable to sufficiently verify the origins for all minerals used in our products through the due diligence process we implement. Moreover, we may encounter challenges to satisfy those customers who require that all of the components of our products are certified as conflict free”*

5) *Operational Risk*: These companies state that the Act will adversely impact the company’s operations. As an example, Calamp Corp in their 2014 financial statements states, *“If we cannot guarantee that all products exclude conflict minerals sourced from the DRC, certain number of our customers may discontinue, or materially reduce, purchases of the Company’s products, which could result in a material adverse effect on our results of operations and financial condition may be adversely affected”*

6) *Supply Limitations and Increased Prices*: These companies expressed the concern that the upcoming conflict minerals legislation will limit their sources of supply. For example, AAON Inc. in their 2014 financial statements reports that *“As there may be only a limited number of suppliers offering “conflict free” conflict minerals, we cannot be sure that we will be able to obtain necessary conflict minerals from such suppliers in sufficient quantities or at competitive prices”*. In addition, Intricon Corp. in their 2014 financial statements reports *“The implementation of these rules could adversely affect the sourcing, supply, and pricing of materials used in our products”*.

7) *Legal Liability Risk*: Companies point out that the conflict minerals legislation may increase legal liability risk, for example, Oracle Corp. in their 2013 financial statements reports, *“We endeavor to comply with these environmental and other laws, yet compliance with such laws could increase our product design, development, procurement, manufacturing and administration costs, limit our ability to manage excess and obsolete non-compliant inventory, change our sales activities, or otherwise impact future financial results of our hardware systems business. Any violation of these laws can subject us to significant liability, including fines, penalties and possible prohibition of sales of our products into one or more states or countries”*

8) *Sanctions Risk*: These companies disclose that failure to comply with the upcoming Act may increase sanctions and boycott risk. For example, Volterra Semiconductor Corp. in their 2014 financial statements reports, *“If we, or the subcontractors that we use, fail to timely comply with such laws, our customers may refuse to purchase our products”*. While Gigoptix Inc. in their 2014 statements reports that *“If we are not able to meet customer requirements, customers may choose to disqualify us as a supplier”*

10) *Profitability*: These companies disclose that the Act will negatively impact profitability. As an example, Standard Microsystems Corp. in its 2012 financial statements reports that, “*Compliance with this legislation will result in additional expense related to expanded monitoring of the Company's supply chain and could result in the Company restricting or modifying the sources from which it acquires key minerals needed to manufacture its products, which could adversely affect its revenues and profitability*”.

11) *Verifiability*: These companies disclose information about the difficulty to verify the sources and the supply chains. As an example, Anadigics Inc. in its 2014 financial statements reports “*Since our supply chain is complex, we may not be able to sufficiently verify the origins for these minerals and metals used in our products through the due diligence procedures that we implement, which may harm our reputation*”. In addition, Applied Micocircuits Corp. states that, “... *since our supply chain is complex and some suppliers will not share their confidential supplier information, we may face challenges with our customers and suppliers if we are unable to sufficiently verify that the metals used in our products are “conflict free.”*”.

6. Results

6.1. Results of the Univariate Analysis

Table 2 provides comparative summary statistics (Mean, Median, Lower Quantile (Q1), and Upper Quantile (Q3)) and univariate analyses between companies that file Form SD (Panel A) and those that did not (Panel B). Filer firms have a greater number of human rights concerns (*HRCON*), greater number of firms ranked as the most admired companies by Fortune (*REPUT*), and higher amount of total audit fees (*TAFEES*). The mean difference between filers and non-filers for *HRCON*, *REPUT*, and *TAFEES* are positive and statistically significant at the 10 percent level.

These results suggest that filer companies are more likely to be associated with higher levels of human rights violation risk, greater reputational risk, and higher financial reporting costs.

Furthermore, filers companies are larger in terms of total assets and market value of equity, are associated with lower bid-ask spreads (*SPREAD*), and tend to belong to the Business Equipment industry group. The mean difference between the two groups in terms of *ASSETS*, *MVEQ*, *SPREAD*, and *INDUST* is statistically significant at conventional levels.

The mean difference in *FPSCORE*, a proxy for firms' historical financial performance, defined as the factor score from a factor analysis of 13 financial performance measures, is positive and significant. Furthermore, the mean difference in 9 out of 13 performance measures is positive and statistically significant. This is consistent with the notion that companies which engage in human rights violations tend to extract excess rents, in terms of lower minerals prices, and lower wages via exploitation, which translate into higher performance.

In summary, companies that file CMR, have poor human rights performance, higher financial reporting costs as evidenced by higher audit fees, higher financial performance, lower spreads, are larger in size and more subject to sanction risk, and tend to belong to the Business Equipment and Manufacturing industry groups.

[Insert Table 2 Here]

6.2. Results of the Equity market reaction

Table 3 reports the results of the equity market reaction to announcements of the regulatory intervention timeline leading to the passage of the Act. This study's emphasis is on the aggregate

equity market response of all the announcements since it reflects the aggregate of the incremental information associated with the probability of success or failure of the bill and its implication on security prices. The US regulatory and political process to pass a bill involves input from different committees, government agencies, and political groups over an extended period of time, during which incremental information is released. As a result, it is the aggregate equity market response to all clean announcements (i.e. not confounded by other major news unrelated to conflict minerals) instead of a single announcement that we will use to access the impact of the regulatory events timeline on market prices.

For the total sample of 3,640 firms with non-confounding events, the aggregate three-day announcement period CAAR is negative and statistically significant at the 0.10 percent level. However, because the Act is directly applicable to companies which utilize conflict minerals in their production processes, the equity market response is anticipated to have a differential impact that is dependent on the extent of firms' reliance and utilization of these minerals in their production process. To examine this proposition, we partition the total sample on the basis of conflict minerals utilization: Heavy Users vs Medium Users vs No Users (Panel A) and All Users vs No Users (Panel B). We then test for the difference in means of the CAAR between All Users vs No Users.

The aggregate three-day CAAR for non-confounding events for the Heavy Users is -2.440 percent which is statistically significant at the 1 percent level. For All Users, the CAAR is -2.490 percent and is statistically significant at the 1 level. For the No Users group, the CAAR is negative -1.270 percent, but it is marginally significant. The mean difference in CAAR between All Users and No Users is -1.220 percent which is statistically significant at 5 percent level.

These results suggest that investors perceive that the passage of the Act will have negative economic implications for companies utilizing these minerals in their production process. The negative aggregate equity market response is more pronounced for companies which rely heavily on conflict minerals relative to companies that are not heavy users. This result suggests that the capital market perceives that the Act will have a differential impact on firm value based on the extent of the conflict minerals utilization.

In Summary, the negative equity market reaction to events leading up to the successful approval of the Conflict Minerals Act is consistent with the hypothesis that mandatory disclosures under the Act will force companies to reveal information detailing the extent of their exposure to human rights violations. These disclosures may lead to an increase in reputational, legal liability, operational, sanction and boycott risk. Furthermore, the equity market response may reflect investors' expectation of an increase in compliance cost, and a decline in excess rents (profits) due to a lack of access to low-priced minerals from conflict zones, that are mined under conditions of human rights abuses.

[Insert Table 3 Here]

Table 4 reports the results of the equity market response to the conflict minerals mandatory special disclosures in Form SD. Panel A presents the result for the total sample of 1,154 special disclosures filed by companies on Form SD. Companies utilizing conflict minerals in their production processes are required to file Form SD, regardless of whether or not the minerals are sourced from covered zones (zones where human right abuses are committed). The three-day announcement period mean CAAR is negative -0.009 and statistically significant at the 5 percent

level. These findings are consistent with the hypothesis that investors perceive that mandatory disclosures of conflict minerals information in Form SD with regard to company exposure to human rights violation risk is associated with a negative valuation effect.

The negative equity market response associated with such disclosures reflects the capital market's assessment of anticipated increases in reputational, legal liability, sanction and boycott, and operational risks and an increase in financial reporting costs. Furthermore, it reflects expected losses of excess profits from utilizing minerals sourced at low prices from conflict zones under conditions of human right abuses. In cross-sectional and logistic regression analyses we will attempt to disentangle these effects and provide further evidence about the determinants of the equity market response.

Table 4, Panel B reports the results of disclosures related to the covered zone and whether conflict minerals are mined from the region. Firms in Group B.1 disclose that, based on a reasonable country of origin inquiry (RCOI), the company knows or has reason to believe that its minerals may have originated in the DRC or adjoining countries (the covered countries). The announcement period CAAR is -0.025 and both the mean and the median are statistically significant at 1 percent level. Group B.2 firms disclose that their minerals are sourced from non-conflict zone and/or from recycled materials or scrap. For this group, the CAAR is positive 0.004 (0.004) but not significant. The mean difference in CAAR between Group B.1 and B.2 is -0.0297 which is statistically significant at 1 percent level. These results lend support to the argument that corporate exposure to human rights violation risk, as evidenced by sourcing minerals from conflict zones is associated with a negative valuation effect.

Firms in Group B.3 disclose that, after exercising due diligence the company was *not able to determine* that conflict minerals are not from covered countries or from scrap or recycled materials – that is, they have chosen the “undetermined” option. For these companies, the CAAR is negative -0.0103 which is statistically significant at conventional levels. It is important to point out that the “Undetermined” option will expire by May 31, 2016, and after that date companies need to disclose the source of their minerals and whether or not the minerals are sourced from the conflict zone. The negative equity market reaction to this group reflects investors’ assessment that companies with ambiguous disclosure which disclose the source of its mineral is “Undetermined” are more likely sourcing their minerals from the conflict zone. However, they exercise their option to delay the disclosure of bad news (sourcing minerals from covered countries) until required by May 31, 2016.

Table 4 Panel C presents the results of the equity market response to disclosures related to the question of whether or not the proceeds from conflict minerals support armed groups engaged in human right abuses. Firms in Group C.1 are those that disclose that in exercising their due diligence, the company determines that the proceeds from conflict minerals were not utilized to finance or benefit armed groups. The CAAR is positive 0.007 and marginally significant at the 5 percent level. The CMAR is positive 0.002, but insignificant. No companies report that the proceeds from their minerals support armed groups. Firms in Group C.3 disclose that after exercising due diligence the company is unable to determine that conflict minerals were not utilized to finance armed groups, that is, the source is “Undetermined”. The CAAR is negative -0.011 and statistically significant at the 5 percent level. These results lend further support to the hypothesis that exposure to human rights violation risk is associated with a negative valuation effect.

In summary, conflict minerals mandatory disclosures informing investors about the extent of corporate exposure to human rights violation under the Act is associated with negative equity market reaction. The equity market reaction is more negative and limited to companies that source their minerals from conflict zones with human rights violations and to companies with ambiguous disclosures who fail to disclose the source of its minerals or whether the proceeds from their minerals support or benefit armed groups engaged in human rights violations. Companies that source their minerals from non-conflict zones or obtain their minerals from recycled material or scrap and those companies where the proceeds from their minerals do not support armed groups are associated with positive, though marginally significant, valuation effect. These results are consistent with the hypothesis that mandatory disclosure of corporate exposure to human rights violations is associated with an increase in reputational, operational, legal liability, sanction and boycott risk and losses of excess rents generated from sourcing minerals mined under conditions of human rights abuses.

[Insert Table 4 Here]

Table 5 reports the results of 455 firms that disclosed conflict minerals related information in their CSR report as part of the annual or the quarterly financial statements (10-K and 10-Q filings). The results in Table 5 indicate that in 88.57% of the cases management expresses a negative attitude toward the Act, stating that it will adversely impact the company. 11.43% of firms were neutral (expressing neither positive nor negative comments). Out of the 455 firms, not one company expresses a positive attitude or anticipates a positive outcome.

With regard to the main concern about the implication of mandatory disclosure about conflict minerals information under the Act; 77.14% of firms indicate that the Act will increase compliance

and production costs; 69.22% state that disclosures will increase reputational risk; 56.70% indicate that the Act will limit the sources of supply of minerals; and 50.55% indicate that it will increase the price of minerals.

Furthermore, Table 5 reports the results of the equity market response around the disclosure date (the filing date of the quarterly report) for the total sample of 455 firms as well as the equity market response categorized by management's anticipated impact (negative or neutral) and by management's concerns about the anticipated impact of the Act. The announcement period CAAR and the cumulative median abnormal return (CMAR) for the total sample of 455 firms is positive but not statistically significant. The lack of a equity market response may reflect the poor quality of disclosure in the CSR report and the fact that CSR is part of the annual and quarterly reports which incorporate information not related to conflict minerals.

[Insert Table 5 Here]

6.3. Results of Cross-Sectional Analysis

Table 6 presents the Pearson (upper segment) and Spearman (lower segment) correlation coefficients between the independent variables utilized in the cross-sectional and logistic regression analyses. Firm size (*SIZE*) is positively correlated with audit fees (*TAFEEES*), firm reputation (*REPUT*), historical financial performance (*FPSCORE*), number of human rights concerns (*HRCON*); and negatively correlated with bid-ask spreads. This suggests that larger companies tend to pay higher audit fees, be ranked among the most admired companies by *Fortune* (proxy for firm reputation), have better financial performance, higher number of human rights concerns and exposure to human rights violation risk, and lower bid-ask spreads. Furthermore,

companies ranked among the most admired by *Fortune* tend to be larger and pay higher audit fees, most likely due to their size. While companies with higher bid-ask spreads tend to have lower financial performance (*FPSCORE*), and lower audit fees (*TAFEEES*), and are less likely to be ranked among the most admired companies, most likely driven by firm size. We tackle the problem of multicollinearity among independent variables by estimating the cross-sectional regression models with and without such correlated variables.

[Insert Table 6 Here]

Tables 7 and 8 report the results of a cross-sectional analysis where the dependent variable is the three-day announcement period CAAR for firms that file Form SD. Since the proxy for financial reporting quality (*FRQ*) has the least number of observations relative to other variables, we estimate the regression models with (results reported in Table 7 with N= 951) and without (results reported in Table 8 with N=1122) *FRQ* in order to gain more information by including more observations in the analysis.

In Table 7 the proxies for corporate exposure to human rights violation risk including *CZONE* (whether the company source its minerals from the covered zone, or not), *HRCON* (the number of reported cases of human rights concerns), and *ARMGRP* (whether the proceeds from the company's minerals support armed groups engaged in human right violations), carry the anticipated sign and are statistically significant at 1 percent level. These results are consistent with the hypothesis that mandatory disclosure of information revealing the extent of corporate exposure to human rights violation is a significant factor that negatively impacts firm value.

SANCTION, which is a proxy for sanction and boycott risk, is negative and statistically significant at the 1 percent level across the five models, suggesting that mandatory disclosures of conflict minerals information is expected to have a stronger negative equity market response for companies located in states with regulations to sanctions companies with exposure to human right violation risk.

REPUT is a proxy for firm reputational risk. Companies with a significant amount of reputational capital are less likely to engage in human right violations. As anticipated, *REPUT* is positive and statistically significant at the 0.01 level across all model specifications. This is consistent with the hypothesis that corporate engagement in human rights violation will expose firms to reputational risk and have a negative impact on firm value.

Total audit fees (*TAFEEES*), a proxy for financial reporting costs, is negative and statistically significant across the five regression model specifications. Mandatory disclosures of conflict minerals information will impose additional financial reporting cost in terms of verifiability and additional auditing requirements. The SEC estimates that the cost of first compliance for the Act could be between 3 and 4 billion dollars (Woody, 2012). Furthermore, companies need to spend between \$200 to \$400 million dollars for continuous compliance with the provisions of the Act (Sarfaty, 2013). In a study conducted by the US National Association of Manufacturers, the actual cost of compliance with Section 1502 could reach \$8 to \$16 billion (Woody 2012). Companies characterized by higher financial reporting costs are more likely to suffer higher compliance costs and have a stronger negative equity market reaction.

FRQ is a proxy for financial reporting quality. Companies with superior financial reporting quality are less likely to expose themselves to human rights violation risk, and hence, be less likely

to be severely impacted by conflict minerals disclosures. *FRQ* is negative, though it is not significant in any of the models specifications.

FPSCORE, a proxy for firm's historical financial performance is positive, however, it is only marginally significant in model 4. The hypothesis that companies with superior financial performance are less likely to be impacted by the additional costs of compliance and more capable to weather additional risks associated with conflict minerals disclosures, is only marginally supported.

SPREAD, which is a proxy for the degree of transparency and information asymmetry, defined as the bid-ask spread, is negative and statistically significant at 0.10 level. These results suggest mandatory disclosures on Form SD will force less transparent companies to reveal more information about the extent of their exposure to human rights violations, hence, these companies are more likely to have a stronger negative equity market reaction.

SIZE is a proxy for firm size defined as the log of total assets. *SIZE* is positive and statistically significant at the 1 percent level across all models. This finding supports the hypothesis that larger companies bear lower costs of compliance with the Act due to economies of scale in financial reporting costs. *INDUST* is a proxy for industry affiliation defined as an indicator variable equal 1 if the company belongs to the Business Equipment (computers, software, and electronic equipment's) and Telecommunications groups based on Fama-French (1997) 12-industry classification scheme. These are the types of industries that can be classified as heavy users of conflict minerals and thus are more likely to be the most impacted by the mandatory disclosures. Consistent with my predictions, *INDUST* is negative and statistically significant at the 5 percent level in all models.

The explanatory power of all the models is very reasonable with F-values ranging from 26.60 to 34.20 which are statistically significant at the 0.10 percent level. Adjusted R-squares range from 0.189 to 0.229 which suggest a reasonable explanatory power. Table 8 presents the results from estimating the same models in Table 7 without the inclusion of the *FRQ* variable. This is because *FRQ* has the least number of observations. Hence, to gain more information from using a larger sample we estimate the models without *FRQ*. As shown in Table 8, the results to a large extent echo those in Table 7. This suggests that the results are robust to a relatively smaller sample size.

[Insert Tables 7 & 8 Here]

6.4. Results of the Logistic Regression

To examine the unique characteristics of companies filing the special conflict minerals disclosures in Form SD we estimate a logistic regression model where the dependent variable is an indicator variable equal to 1 if the company files Form SD, and zero for non-filers. Table 9 reports the results of the logistic regression with *FRQ* included while Table 10 reports the results without *FRQ*. In Table 9, *HRCON*, a proxy for human rights violation risk is positive, as anticipated and statistically significant at the 1 percent level. This suggests that companies with higher numbers of human right concerns are more likely to file Form SD. *SANCTION* is positive as anticipated; however, it is not statistically significant in any of the model specifications. *REPUT*, a proxy for firm's reputational capital, is negative in all models, though it is significant in three out of five models. These results suggest that companies which are sensitive to reputational capital are less likely to source minerals from conflict zones, and hence, be less likely to file Form SD.

TAFEEES, a proxy for financial reporting costs, is positive in all model specifications and statistically significant at the 1 percent. This suggests that filers of the conflict minerals report are more likely to be companies associated with higher financial reporting costs as evidenced by higher total audit fees.

FPSCORE, a proxy for firm's financial performance is positive and statistically significant in all models at conventional levels, which suggests that filer firms are more likely to have higher historical financial performance relative to non-filers.

SPREAD, a proxy for transparency and information asymmetry, is positive and statistically significant at the 1 percent across all the models. This suggests that filers of Form SD tend to be less transparent and characterized by higher degrees of information asymmetry (this may reflect the fact that a significant number of conflict minerals users are high-tech and electronics companies which are characterized by operational complexities and thus higher degree of information asymmetry).

SIZE is positive and statistically significant at conventional levels; these results suggest that filers companies tend to be larger in size relative to non-filers. *INDUST*, a proxy that captures industry effects, is positive and it is highly significant across the seven regression models. These findings suggest that companies within the Business equipment sector are more likely to be filers, likely due to the fact that these companies tend to be heavy users of conflict minerals.

The logistic regression models have a reasonable explanatory power with Pseudo R-square ranging from 0.079 to 0.11 across all regression models. Table 10 reports the results of estimating the same models in Table 9 but without the *FRQ* variable, and the results echo those in Table 9.

[Insert Tables 9 & 10 Here]

In summary, companies filing the conflict minerals mandatory disclosures under Section 1502 of the Act are characterized by poor human rights performance (higher number of human rights concerns), lower levels of reputational capital, higher financial reporting costs, higher historical financial performance, lower transparency, larger size, and a greater likelihood of belonging to the Business Equipment industry relative to non-filer firms.

7. Summary and Conclusions

The Act, which requires mandatory disclosure on conflict mineral usage for all US registered firms, was implemented to encourage companies to manage their supply chains in a manner that avoids human rights abuse. Proponents of the Act believe that decreased use of conflict minerals will reduce support to armed groups that fuel the ongoing conflict in the DRC and adjoining countries. Opponents of the legislation believe that its benefits do not justify reputation, sanction and compliance costs to individual firms, or the costs that might be imposed on the DRC economy arising from reprisals by marginalized rebel groups or trade sanctions from firms wary of conducting business in the region. To contribute to this current and important debate, we empirically examine the linkage between the human rights, corporate disclosure and financial reporting by examining the equity market reaction to disclosures under the Act.

Using a large and inclusive sample, we assess the market's perception of the rule and its effectiveness by examining the individual and the aggregate equity equity market response to several regulatory events relevant to the conflict mineral regulation. We find that investors react

negatively to events that signal an increase in the likelihood of the passage of the conflict minerals legislation.

Our results suggest that mandatory disclosures under the Act provide information to investors about reputational, legal liability, operational, and sanction and boycott risk. The results are also consistent with the hypothesis that prior to the passage of the Act, investors were anticipating an increase in compliance cost, and a decline in profits.

Likewise, mandatory conflict minerals disclosures on Form SD informing investors about the extent of corporate exposure to human rights violation is associated with negative equity market reaction. The market reaction is more negative and limited to companies that source their minerals from conflict zones with human rights violations, and to companies with ambiguous disclosures about their support of armed groups or the source of their minerals. These results support the notion that disclosure of corporate exposure to human right violation as mandated under the Act, is associated with an increase in reputational, operational, legal liability, sanction and boycott risk and loss of excess rents.

We also provide information about firms' concerns about the new legislation by examining the early disclosures of human rights concerns in CSR reports. The majority of the firms in the early disclosure sample express a negative attitude towards the Act, citing concerns about increases in compliance and production costs and reputation risk. However, the equity market reaction to early voluntary disclosure in CSR reports was not found to be statistically significant, indicating noise or poor quality of traditional CSR disclosures.

Finally, the logistic regression analysis sheds light on which unique firm characteristics are associated with greater exposure to human right violation risk. We find that firms with poor human rights performance, lower reputational capital, higher financial reporting costs, lower financial performance, and greater information asymmetry are all determinants of human right violation risk.

Overall, the findings suggest an economic justification for companies with poor conflict minerals practices to improve, and avoid the reputational damage and high litigation and sanction costs that will arise from the new conflict minerals disclosure requirements. This paper provides a strong endorsement of the effectiveness of the format of the new mandatory Form SD, in that the information produced provides information that allows the market assess human rights risk.

Our study is subject to several limitations. Although the sample of Form SD disclosures is large, we do not fully capture the capital market reaction to the Act for the following two reasons. First, the sample of Conflict Mineral Disclosures in Form SD is still incomplete. Many companies are still in the early stages of their compliance exercises. A survey conducted by Price Waterhouse Coopers (PWC 2014) reports that 26% of respondents were either finalizing scoping or planning and performing their reasonable country of origin inquiry (RCOI) but had yet to evaluate RCOI responses, with 11% still in the product scoping stage (PWC, 2014). This delay of firm's disclosures will reduce the number of firms in the sample. Second, the conflict mineral status disclosed by some companies is still ambiguous. According to the final rule (Release No. 34-67716) by SEC (2012), during the transition period¹⁷ for the implementation, companies are allowed the option to disclose their conflict mineral status as “undeterminable”. Likely to avoid risks, some companies have chosen this option, rather than exercise the costly due diligence that they would

¹⁷ Transition Period: two years for big companies and four years for small companies

have to conduct in the event they use conflict minerals from the conflict zones or support armed groups. This ambiguity in expression will affect the classification for the sample companies and influence the judgments on the exact equity market reaction to this new regulation.

Along with the continuous implementation, the transition period for conflict mineral disclosure will end by 2016 for large filers and 2018 for smaller companies (SEC, 2012). At that time the disclosure option of “undeterminable” will be unacceptable and independent private sector audits are required for all issuers (KPMG, 2013). We leave it to future research to explore further determinants of the equity market reaction.

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List of Tables

Table 1: Frequency Distribution by Fama-French Industry Classification Code

Frequency distribution by industry group based on Fama-French industry classification code for the total sample, companies file conflict minerals report Form SD, and companies do not file Form SD. Industry Group numbering reference is 1.Consumer Non-Durables: Food, Tobacco, Textiles, and Apparel; 2. Consumer Durables: Cars, TV's, Furniture, and Appliances; 3. Manufacturing: Machinery, Trucks, Planes, Papers, and Printing; 4. Energy: Oil, Gas, and Coal Extractions; 6. Business Equipment: Computers, Software, and Electronic Equip.7. Business Equipment: Computers, Software, and Electronic Equip; 8. Utilities; 9. Shops Wholesale, Retail, and some Services; 10. Healthcare, Medical Equipment, and Drugs; 11. Money and Finance (Excluded from the sample); and 12. Others: Mines, construction, Building Materials, etc. *CZONE1* is an indicator variable equal 1 if the company disclosed in its Form SD that it source minerals from conflict zone and zero otherwise. *CZONE2* is an indicator variable equal 1 if the company disclosed in its Form SD that it source minerals from conflict zone or the source of its minerals is undetermined and zero otherwise *HRCN* is indicator variable equal one if the company has a human rights concern over the period 2011-2013 as reported by KLD database and zero otherwise. *ARMGRP* is an indicator variable equal 1 if the company disclosed in its Form SD that the proceeds from its conflict minerals do not support armed groups. *ARMGRP2* is an indicator variable equal 1 if the company disclosed in its Form SD that the proceeds from its conflict minerals is undeterminable on wither it support armed groups or not. *SANCTION* is an indicator variable equal 1 if the company headquarter is located in the State of California, Maryland, and St. Petersburg-Florida, and zero otherwise, these state passed regulations to sanction companies with exposure to conflict minerals from obtaining state contracts. *REPUT* is a proxy for firm reputation and it is an indicator variable equal 1 if the company is one of the most admired companies as ranked by *Fortune* over the period from 2011 through 2013. All firms is the total sample of companies with return available on the CRSP and or data available on the COMPUSTAT database

<i>Industry</i>	<i>All Firms</i>		<i>No Form SD</i>		<i>File Form SD</i>		<i>CZONE1</i>		<i>CZONE2</i>		<i>HRCN</i>		<i>ARMGRP1</i>		<i>ARMGRP2</i>		<i>REPUT</i>		<i>SANCTION</i>	
<i>Group</i>	N	%	N	%	N	%	N	%	n	%	n	%	n	%	n	5	n	%	n	%
1	248	5.64	199	6.24	49	4.04	3	1.65	22	2.52	34	4.01	3	4.29	19	2.39	8	5.06	9	3.88
2	113	2.57	42	1.32	71	5.86	7	3.85	55	6.30	54	6.37	4	5.71	50	6.30	10	6.33	4	1.72
3	440	10.00	181	5.68	259	21.39	43	23.63	190	21.76	200	23.58	16	22.86	169	21.28	36	22.78	18	7.76
4	313	7.12	277	8.69	36	2.97	2	1.10	22	2.52	26	3.07	2	2.86	20	2.52	7	4.43	1	0.43
5	115	2.61	77	2.42	38	3.14	6	3.30	19	2.18	38	4.48	3	4.29	16	2.02	5	3.16	1	0.43
6	907	20.62	500	15.68	407	33.61	78	42.86	325	37.23	256	30.19	20	28.57	303	38.16	39	24.68	134	57.76
7	179	4.07	160	5.02	19	1.57	4	2.2	14	1.60	7	0.83	0	0	14	1.76	3	1.90	4	2.16
8	164	3.73	156	4.89	8	0.66	1	0.55	5	0.57	7	0.83	0	0	5	0.63	0	0	1	0.43
9	452	10.28	323	10.13	129	10.65	12	6.59	79	9.05	101	11.91	14	20.00	67	8.44	30	18.99	18	8.62
10	782	17.78	637	19.98	145	11.97	20	10.99	111	12.71	94	11.08	5	7.14	102	12.85	14	8.86	37	15.95
12	686	15.59	636	19.95	50	4.13	6	3.30	31	3.55	31	3.66	3	4.29	29	3.65	6	3.80	2	0.86
All	4399	100	3188	100	1211	100	182	100	873	100	848	100	70	100	794	100	158	100	232	100

Table 2: Summary Statistics and Univariate Analysis

A summary statistics (Mean, Median, Lower Quantile (Q1, and the Upper Quantile (Q3)) and univariate analysis between companies file the conflict minerals Form SD (Panel A) and companies do not file Form SD (Panel B). *HRCON* is an indicator variable equal one if the company has a human rights concern over the period 2011-2013 as reported by KLD database and zero otherwise. *REPUT* is a proxy for firm reputation and it is an indicator variable equal 1 if the company is one of the most admired companies as ranked by *Forbes* over the period from 2011 through 2013 and zero otherwise. *TAFEEES*, *AFEES*, and *NAFEES* are dollar amount of the total audit fees, audit fees and non-audit fees, from Audit Analytics for the year before the announcement year. *SANCTION* is an indicator variable equal 1 if the company headquarter is located in the State of California, Maryland, and St. Petersburg-Florida, and zero otherwise, these state passed regulations to sanction companies with exposure to conflict minerals from obtaining state contracts. *SPREAD* is bid-ask spread defined as [(the High closing price-the Low closing price)/ (High closing price + the Low closing price)/2]*100. *INDUST* is an indicator variable equal 1 if the company belongs to Business Equipment's (computers, software, and electronic equipment's) and Telecommunications (telephone and televisions) based on Fama-French industry classification scheme. *FPSCORE* is a proxy for firm's financial performance defined as the factor scores from a factor analysis utilizing 13 measures of financial performance. *FRQ* is a proxy for financial reporting quality utilizing three measures of financial reporting quality. D-Mean and D-Median is the difference in the means and median between the mean and median in Panel A: companies file Form SD and Panel B: Companies does not file Form SD.

Sample	Panel A: Companies File Form SD					Panel B: Companies does not File Form SD					Difference in	
Variable	N	Mean	Median	Q1	Q3	N	Mean	Median	Q1	Q3	D-Mean	D-Median
<i>HRCON</i>	1211	0.700	1.000	0.000	1.000	3188	0.488	0.000	0.000	1.000	0.212	1.000
<i>REPUT</i>	1211	0.125	0.000	0.000	0.000	3188	0.045	0.000	0.000	0.000	0.080	0.000
<i>TAFEEES</i>	1209	4.482	1.789	0.824	4.512	2612	2.026	0.884	0.356	2.027	2.456	0.905
<i>AFEES</i>	1209	3.539	1.509	0.714	3.602	2612	1.671	0.759	0.305	1.653	1.868	0.750
<i>NAFEES</i>	1209	0.942	0.220	0.047	0.769	2612	0.390	0.078	0.014	0.298	0.552	0.142
<i>SANCTION</i>	1211	0.211	0.000	0.000	1.000	3188	0.176	0.000	0.000	0.000	0.035	0.000
<i>SPREAD</i>	769	58.813	52.737	41.157	71.153	2409	76.001	68.823	47.665	98.869	-17.188	-16.086
<i>INDUST</i>	1211	0.352	0.000	0.000	1.000	3188	0.207	0.000	0.000	0.000	0.145	0.000
<i>FPSCORE</i>	1126	0.150	0.310	0.080	0.440	2520	-0.129	0.231	-0.192	0.393	0.279	0.079
<i>ROA</i>	1126	0.003	0.012	-0.001	0.021	2520	-0.011	0.006	-0.015	0.016	0.014	0.018
<i>ROE</i>	1126	0.004	0.023	-0.002	0.042	2520	-0.032	0.013	-0.031	0.034	0.036	0.036
<i>ROS</i>	1126	-0.119	0.041	-0.010	0.088	2520	-0.847	0.021	-0.111	0.080	0.728	0.020
<i>EVA</i>	1126	0.014	0.021	0.007	0.031	2520	0.001	0.014	-0.005	0.027	0.013	0.007
<i>EVADA</i>	1126	0.025	0.030	0.017	0.042	2520	0.013	0.025	0.008	0.040	0.012	0.005
<i>EPS</i>	1126	-0.001	0.012	-0.002	0.018	2520	-0.017	0.007	-0.021	0.016	0.016	0.005
<i>QEARN</i>	1126	1.463	1.312	0.612	2.019	2520	1.318	1.180	0.152	2.396	0.145	0.132
<i>TOBQ</i>	1126	1.582	1.254	0.895	1.866	2520	1.725	1.197	0.817	1.915	-0.143	0.057
<i>MVA</i>	1126	0.714	0.373	0.009	0.992	2520	0.792	0.236	-0.181	1.016	-0.078	0.609
<i>EPSG</i>	1126	-0.101	0.034	-0.459	0.278	2520	-0.145	0.017	-0.665	0.326	0.044	0.017
<i>SALEG</i>	1126	0.034	0.019	0.001	0.043	2520	0.060	0.022	-0.001	0.065	-0.026	-0.003
<i>RETH</i>	1126	0.064	0.059	0.025	0.095	2520	0.059	0.054	0.006	0.110	0.005	0.005
<i>ABRD</i>	1126	-0.084	-0.009	-0.701	0.694	2520	-0.283	-0.159	-1.054	0.692	0.199	0.150
<i>REPSCORE</i>	931	0.149	0.057	-0.332	0.574	1914	-0.186	-0.216	-0.662	0.288	0.335	0.273
<i>FRQ</i>	988	0.010	-0.002	-0.210	0.231	1702	-0.017	0.006	-0.270	0.281	0.027	-0.008
<i>MJON</i>	988	0.005	0.005	-0.018	0.028	1702	0.000	0.005	-0.029	0.034	0.005	0.000
<i>JONMPM</i>	988	-0.001	0.001	-0.039	-0.038	1702	-0.002	-0.001	-0.052	0.048	0.001	0.002
<i>FLOSIC</i>	988	0.001	0.000	-0.017	0.018	1702	-0.000	0.001	-0.024	0.025	0.001	0.000
<i>MVEQ (M\$)</i>	1127	7547	932	252	3994	2608	2992	364	72	1621	4555	568
<i>ASSETS (M\$)</i>	1209	9421	1085	264	4358	3163	4880	394	87	2030	4540	691

Table 3: The Equity Market Response to Announcements of Regulatory Timeline of Conflict Minerals Rules

The table depict the stock market reaction to announcements of regulatory timeline to the passage of Conflict Minerals Act 1502. CAAR is the announcement period Cumulative Average Abnormal Returns over the period from day t-1 through day t+1 relative to the announcement day t0, the average abnormal returns is generated utilizing the market adjusted returns methodology. Confounding Effect is whether the event date is confounded by other major announcements over the three-day window from day t-1 through day t+1; description of the confounding events is listed under each event date description in Appendix A. All represent a sample of all companies that are subject to the Section 1502 of Dodd-Frank Conflict minerals regardless of the extent of their usage of these minerals (3TG) and whether such minerals are conflict minerals or not. **Heavy Users** are companies that depends heavily on the subject minerals in their production process, regardless of the source, whether it's a recycled minerals or it's from the conflict zones or not. **Medium Users** are those companies with medium usage of the 3TG in their processes. All Users are the heavy and medium users as defined before. **No Users** are those companies that do not use these minerals. Difference is the difference in the CAAR between All Users-No Users. Aggregate CAAR-All is the announcement-period cumulative average abnormal returns aggregated over all the events for both confounding and non-confounding events. Aggregate CAAR-Clean is the announcement period CAAR for the clean (non-confounding events). ***, **, * denoted a level of significance at one, five, and ten percent level.

Announcement Date	Confounding Effect	All Firms	Heavy Users	Medium Users	All Users	No Users	Difference
E1- May 22, 2008	Confounded	0.670***	0.970***	0.690***	0.900***	0.360***	0.540
E2- April 23, 2009	Confounded	1.490***	0.870**	1.170*	0.870***	2.270***	-1.400
E3- July 21, 2010	Confounded	0.820***	0.360	0.980***	0.510	1.210***	-0.700
E4- September 11, 2010	Clean	0.290	0.490**	0.140	0.320	0.130	0.190
E5- December 15, 2010	Confounded	0.320***	0.670***	0.080	0.530**	0.060*	0.470
E6- April 7, 2011	Clean	-0.250***	-0.270***	-0.250*	-0.250***	-0.240***	-0.010
E7- May 25, 2011	Clean	0.630***	0.850***	0.220	0.700***	0.530***	0.170
E8- July 15, 2011	Clean	-0.710***	-0.930***	-1.230***	-1.010***	-0.360***	-0.650
E9- September 16, 2011	Clean	-1.240***	-1.280***	-0.940***	-1.200***	-1.290***	0.090
E10- October 3, 2011	Confounded	-1.310***	-1.100***	-0.940***	-1.020***	-1.630***	0.610
E11- October 9, 2011	Clean	0.150	-0.070	-0.100	-0.070	0.420	-0.490
E12- May 2, 2012	Clean	-0.710***	-0.630***	-0.710***	-0.650***	-0.780***	0.130
E13- August 22, 2012	Clean	0.160	0.190	-0.230*	0.090	0.250	-0.160
E14- October 19, 2012	Clean	-0.480***	-1.090***	-0.050	-0.760	-0.040	-0.720
E15- March 26, 2013	Clean	-0.130	-0.370	0.000	-0.190	0.050	-0.240
E16- July 23, 2013	Confounded	0.400*	0.050*	0.180	0.430	0.360	0.070
No. of Observation		3640	1505	454	1959	1681	
Aggregate CAAR-All		0.100	-1.290	-0.990	-0.800	1.300	-2.100**
Aggregate CAAR-Clean		-1.970**	-2.440***	-3.070***	-2.490***	-1.270	-1.220**

Table 4: Equity market reaction to Disclosures of Conflict Minerals Information in Form SD

The equity market reaction to conflict minerals disclosures in Form SD. CAAR is the three-day (day t-1 through t1) announcement period average market adjusted abnormal return. CMAR is the median cumulative average abnormal returns. Panel A: present the total number of firms filed special disclosure (Form SD) conflict minerals report. Companies which utilize the Cassiterite (Tin), Columbite-tantalite (Tantalum), Wolframite (Tungsten), and Gold (3TG) whether it is sourced from covered countries or not are required under Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act to file Form SD Special Disclosure conflict mineral report. These companies disclose that conflict minerals (3TG) are necessary to the functionality or production of the product manufactured or contracted to be manufactured. Panel B reports the results of the covered zone disclosures. (The covered countries include, The DRC, Angola, Burundi, Central African Republic, The Republic of the Congo, Rwanda, South Sudan, Tanzania, Uganda, and Zambia). B.1. Conflict Zone: Based on a reasonable country of origin inquiry (RCOI), the company know or have reason to believe that the conflict minerals may have originated in the DRC or an adjoining country (the covered countries). B.2. No Conflict Zone: Through exercising due diligence on the source and chain of custody of its conflict minerals the company determined that the conflict minerals are not from the covered countries or are from scrap or recycled. B.3. Undetermined: After exercising due diligence the company was not able to determine that conflict minerals are not from the covered countries or are from scraps or recycled. Panel C: present the results related to disclosure on whether the proceeds from conflict minerals support armed groups. C.1. No Support to Armed Group: In exercising due diligence, the company determined that the conflict minerals were not utilized finance or to benefit armed groups. C.2. Support Armed Groups: the company determined that the conflict minerals were utilized finance or to benefit armed groups. C.3. Undetermined: After exercising due diligence the company was is not able to determine that the conflict minerals were not utilized finance or to benefit armed groups. C.4. Not Required: companies who does not source minerals from covered countries are not required to provide such information. ***, **, * denotes level of significance at one, five, and 10 percent.

Sample/Subsample	Prediction	N	CAAR	CMAR
Panel A: Total Number of Firms Filed Conflict Minerals Report Special Disclosure Form	Negative	1154	-0.94***	-0.69**
Panel B: Covered Zone				
B.1. Conflict Zone: Conflict Minerals Sourced from Conflict Zone	Negative	191	-2.54***	-1.20***
B.2. No Conflict Zone: Conflict minerals Sourced from Non-conflict zone and/or recycled or scrap.	Positive	270	0.43*	0.43*
B.3. Undetermined	Negative	677	-1.03***	-0.69**
B.4. No Information provided in Form SD	Negative	16	N/A	N/A
Panel C: Conflict Minerals Proceed Support Armed Groups				
C.1. No Support to Armed Groups	Positive	70	0.74**	0.15
C.2. Support Arm Groups	Negative	0	N/A	N/A
C.3. Undetermined	Negative	795	-1.10***	-0.73**
C.4. Not Required	Pos./Neg.	260	N/A	N/A
C.5. No Information provided in Form SD	Pos./Neg.	29	N/A	N/A

Table 5: The Equity Market Reaction to Conflict Minerals Related Early Disclosures in the CSR Report

Corporate attitudes toward and their concerns with regard to Section 1502 Conflict Minerals Act as disclosed in their Corporate Social Responsibility reports. It is defined as early disclosures because it is disclosed in the CSR reports before the mandatory filings date (June 2, 2014) of the Special disclosure forms (Form SD). N is the number of companies with CSR information related to conflict minerals, Percent is the percentage out of 455 companies disclosed conflict minerals information in their CSR reports. Mean CAAR is the three-day cumulative average abnormal returns. CMAR is the cumulative median announcement period abnormal returns. Negative attitude indicate that company's disclosures in CSR report indicate their dissatisfaction toward Section 1502. Neutral, disclosures in the CSR report does show either positive or negative attitude toward conflict minerals legislation (note that we do not have any company shows a positive attitude toward conflict minerals). Costs Increase: indicate that conflict minerals legislation will increase the cost of compliance and production costs. Reputational Risk, companies indicate that compliance with the legislation will expose the company to reputational risk. Operational Risk: Legislation will negatively impact company's operation. Supply Limitation: Legislation will limit the sources of supply of minerals. Legal Liability Risk: disclosure of conflict minerals will expose the company to legal liability risk. Sanction Risk: Disclosures of conflict minerals will increase companies and/or products sanction and boycott risk by costumers and public at large. Competitive Supply Prices: Legislation will cause an increase in the price of minerals and make it less competitive. Profitability: Legislation will negatively impact corporate profitability. Verifiability: it is difficult to verify the sources of conflict minerals and weather the proceeds from these minerals support armed groups or not.

Sample/Subsample	N (Percent)	CAAR	CMAR
1.All Disclosures	455 (100.00%)	0.12	0.03
2. Negative Attitude toward Conflict Minerals Legislation	403 (88.57%)	-0.02	-0.07
3. Neutral Attitude toward Conflict Minerals Legislation	52 (11.43%)	1.15**	0.43
4. Costs Increase: The Act will increase compliance costs/production costs	351 (77.14%)	-0.09	-0.07
5. Reputational Risk: Disclosures will increase reputational risk	274 (69.22%)	-0.21	-0.12
6. Operation: Will negatively impact company's operations	49 (10.77%)	0.72*	0.20
7. Supply Limitations: Legislation will limit sources of supply	258 (56.70%)	-0.19	-0.20
8. Legal Liability Risk: Legislation will increase legal liability	22 (04.84%)	1.10*	1.37*
9. Sanctions Risk: Disclosures will increase sanctions and boycott risk	148 (32.53%)	-0.16	-0.11
10. Competitive supply prices: legislation will increase prices of minerals.	230 (50.55%)	0.10	-0.10
11. Profitability: Legislation will negatively impact profitability	9 (01.98%)	0.61	0.58
12. Verifiability: Difficulty to verify the sources and the supply chains	77 (16.92%)	-0.10	-0.08

Table 6: Person (upper segment) and Spearman (lower segment) Correlation Coefficients among the Independent Variables

HRCON is indicator variable equal one if the company has a human rights concern over the period 2011-2013 as reported by KLD database and zero otherwise. *CZONE1* an indicator variable equal 1 if the company disclosed in its Form SD that it source minerals from conflict zone and zero otherwise. *CZONE2* an indicator variable equal 1 if the company disclosed in its Form SD that it source minerals from conflict zone or the source of its minerals is undetermined and zero otherwise. *ARMGRP* is an indicator variable equal 1 if the company disclosed in its Form SD that the proceeds from its conflict minerals do not support armed groups. *SANCTION* is an indicator variable equal 1 if the company headquarter is located in the State of California, Maryland, and St. Petersburg-Florida, and zero otherwise, these state passed regulations to sanction companies with exposure to conflict minerals from obtaining state contracts. *FPSCORE* is a proxy for firm's financial performance defined as the factor scores from a factor analysis utilizing 13 measures of financial performance. *FRQ* is a proxy for financial reporting quality utilizing three measures of financial reporting quality. *REPUT* is a proxy for firm reputation and it is an indicator variable equal 1 if the company is one of the most admired companies as ranked by *Forbes* over the period from 2011 through 2013. *TAFEEES* is dollar amount of the total audit fees from Audit Analytics for the year before the announcement year. *SPREAD* is bid-ask spread defined as [(the High closing price-the Low closing price)/ (High closing price + the Low closing price)/2]*100. *SIZE* is the log of total assets for the year before the announcement year. *INDUST* is an indicator variable equal 1 if the company belongs to Business Equipment's (computers, software, and electronic equipment's) and Telecommunications (telephone and televisions) based on Fama-French industry classification scheme. The segment above diagonal is the person correlation coefficients and below diagonal are the Spearman correlation coefficients. Letter bold indicate a level of significance at 10 percent level or below. (N=1154)

VARIABLES	<i>HRCON</i>	<i>CZONE1</i>	<i>CZONE2</i>	<i>ARMGRP</i>	<i>SANCTION</i>	<i>FPSCORE</i>	<i>FRQ</i>	<i>REPUT</i>	<i>TAFEEES</i>	<i>SPREAD</i>	<i>SIZE</i>	<i>INDUST</i>
<i>HRCON</i>	1.000	0.041	0.098	0.056	0.096	0.205	-0.012	0.059	0.037	-0.246	0.246	-0.131
<i>CZONE1</i>	0.041	1.000	0.260	0.143	0.041	-0.031	-0.030	0.063	0.097	0.009	0.081	0.097
<i>CZONE2</i>	0.098	0.260	1.000	0.153	0.099	-0.019	-0.019	-0.008	0.055	-0.018	0.026	0.127
<i>ARMGRP</i>	0.053	0.143	0.153	1.000	-0.031	0.036	-0.005	0.135	0.101	-0.038	0.119	-0.034
<i>SANCTION</i>	0.096	0.041	0.099	-0.031	1.000	-0.172	-0.039	-0.046	-0.087	0.124	-0.114	0.254
<i>FPSCORE</i>	0.194	-0.026	-0.023	0.034	-0.212	1.000	-0.010	0.146	0.152	-0.551	0.437	-0.121
<i>FRQ</i>	-0.025	-0.039	-0.042	-0.001	-0.045	-0.013	1.000	-0.062	-0.040	0.012	-0.076	-0.027
<i>REPUT</i>	0.059	0.063	-0.008	0.135	-0.046	0.208	-0.080	1.000	0.545	-0.255	0.514	-0.069
<i>TAFEEES</i>	0.265	0.089	0.061	0.113	-0.051	0.318	-0.092	0.433	1.000	-0.265	0.651	-0.091
<i>SPREAD</i>	-0.215	0.007	0.001	-0.031	0.142	-0.510	0.032	-0.302	-0.439	1.000	-0.497	0.194
<i>SIZE</i>	0.238	0.088	0.021	0.119	-0.128	0.419	-0.098	0.479	0.905	-0.518	1.000	-0.141
<i>INDUST</i>	-0.131	0.088	0.127	-0.034	0.254	-0.235	-0.035	-0.069	-0.029	0.188	-0.147	1.000

Table 7: Results of the Cross-Sectional regression Analysis - with FRQ

The table reports the results from a cross-sectional regression model specified as:

$$CAAR = \beta_0 + \beta_1 CZONE + \beta_2 HRCON + \beta_3 ARMGRP + \beta_4 SANCTION + \beta_5 REPUT + \beta_6 TAFEES + \beta_7 FRQ + \beta_8 FPSCORE + \beta_9 SIZE + \beta_{10} SPREAD + \beta_{11} INDUST + \varepsilon;$$

Where: *CAAR* = the three-day period (t-1 to t+1) cumulative average abnormal return around the disclosure date of Form SD; *CZONE* is an indicator variable equal 1 if the company disclosed in its Form SD that it source minerals from conflict zone and zero otherwise. *HRCON* is indicator variable equal one if the company has a human rights concern over the period 2011-2013 as reported by KLD database and zero otherwise. *ARMGRP* is an indicator variable equal 1 if the company disclosed in its Form SD that the proceeds from its conflict minerals do not support armed groups. *SANCTION* is an indicator variable equal 1 if the company headquarter is located in the State of California, Maryland, and St. Petersburg-Florida, and zero otherwise, these state passed regulations to sanction companies with exposure to conflict minerals from obtaining state contracts. *REPUT* is a proxy for firm reputation and it is an indicator variable equal 1 if the company is one of the most admired companies as ranked by *Forbes* over the period from 2011 through 2013. *TAFEES* is dollar amount of the total audit fees from Audit Analytics for the year before the announcement year. *FRQ* is a proxy for financial reporting quality utilizing three measures of financial reporting quality. *FPSCORE* is a proxy for firm's financial performance defined as the factor scores from a factor analysis utilizing 13 measures of financial performance. *SIZE* is the log of total assets for the year before the announcement year. *SPREAD* is bid-ask spread defined as [(the High closing price-the Low closing price)/(High closing price + the Low closing price)/2]*100. *INDUST* is an indicator variable equal 1 if the company belongs to Business Equipment's (computers, software, and electronic equipment's) and Telecommunications (telephone and televisions) based on Fama-French industry classification scheme. *TSTAT* is the value of the Test statistics. *HCTV* is the Heteroscedastically consistent T-value. *ADJRSQR* is the adjusted R square, and F-Value is the F-Value test statistics of the regression model.

Model No.		Model 1			Model 2			Model 3			Model 4			Model 5		
VARIABLES	PSIGN	PEST	TSTAT	HCTV	PEST	TSTAT	HCTV	PEST	TSTAT	HCTV	PEST	TSTAT	HCTV	PEST	TSTAT	HCTV
INTERCEPT	P/N	-0.009	-1.140	-1.290	0.015	2.730	2.970	-0.015	-2.940	-3.000	0.005	1.450	1.570	0.016	3.110	3.430
CZONE	NEG	-0.053	-13.750	-7.960	-0.053	-13.350	-7.390	-0.053	-13.930	-7.960	-0.052	-13.390	-7.730	-0.053	-13.530	-7.430
HRCON	NEG	-0.016	-4.610	-4.560	-0.012	-3.680	-3.590	-0.013	-4.040	-4.120	-0.009	-3.100	-3.050	-0.010	-3.210	-3.240
ARMGRP	POS	0.040	11.060	5.910	0.039	10.580	5.550	0.040	11.370	5.980	0.039	10.820	5.790	0.039	10.870	5.640
SANCTION	NEG	-0.011	-3.670	-2.740	-0.010	-3.330	-2.510	-0.011	-3.800	-2.780	-0.011	-3.610	-2.660	-0.010	-3.430	-2.590
REPUT	POS	0.019	4.530	-4.200	na	na	na	-0.021	-4.850	-4.410	-0.025	-7.220	-7.260	na	na	na
TAFEES	NEG	-0.001	-1.570	-2.150	-0.002	-4.010	-5.910	-0.001	-1.550	-2.100	na	na	na	-0.002	-4.170	-6.080
FRQ	NEG	-0.002	-0.870	-0.700	-0.001	-0.440	-0.370	-0.002	-0.880	-0.720	-0.002	-0.660	-0.540	-0.001	-0.400	-0.350
FPSCORE	POS	0.001	0.610	0.520	0.004	1.710	1.430	na	na	na	0.005	2.870	2.260	na	na	na
SIZE	POS	0.004	3.540	4.030	na	na	na	0.004	4.230	4.420	na	na	na	na	na	na
SPREAD	NEG	-0.000	-0.870	-0.910	-0.001	-2.090	-2.230	na	na	na	na	na	na	-0.001	-3.240	-3.340
INDUST	NEG	-0.007	-2.750	-2.500	-0.006	-2.410	-2.150	-0.007	-2.700	-2.480	-0.006	-2.310	-2.070	-0.006	-2.390	-2.150
NO. of Obs.		951			951			951			953			980		
ADJRSQR		0.2286			0.1955			0.2214			0.2183			0.1893		
F-VALUE		26.590			26.650			32.090			34.230			29.570		

Table 8: Results of the Cross-Sectional regression Analysis - without FRQ

The table reports the results from a cross-sectional regression model specified as:

$$CAAR = \beta_0 + \beta_1 CZONE + \beta_2 HRCON + \beta_3 ARMGRP + \beta_4 SANCTION + \beta_5 REPUT + \beta_6 TAFEES + \beta_7 FPSCORE + \beta_8 SIZE + \beta_9 SPREAD + \beta_{10} INDUST + \varepsilon;$$

Where: *CAAR* = the three-day period (t-1 to t+1) cumulative average abnormal return around the disclosure date of Form SD; *CZONE* is an indicator variable equal 1 if the company disclosed in its Form SD that it source minerals from conflict zone and zero otherwise. *HRCON* is an indicator variable equal one if the company has a human rights concern over the period 2011-2013 as reported by KLD database and zero otherwise. *ARMGRP* is an indicator variable equal 1 if the company disclosed in its Form SD that the proceeds from its conflict minerals do not support armed groups. *SANCTION* is an indicator variable equal 1 if the company headquarter is located in the State of California, Maryland, and St. Petersburg-Florida, and zero otherwise, these state passed regulations to sanction companies with exposure to conflict minerals from obtaining state contracts. *REPUT* is a proxy for firm reputation and it is an indicator variable equal 1 if the company is one of the most admired companies as ranked by *Forbes* over the period from 2011 through 2013. *TAFEES* is dollar amount of the total audit fees from Audit Analytics for the year before the announcement year. *FPSCORE* is a proxy for firm's financial performance defined as the factor scores from a factor analysis utilizing 13 measures of financial performance. *SIZE* is the log of total assets for the year before the announcement year. *SPREAD* is bid-ask spread defined as [(the High closing price-the Low closing price)/(High closing price + the Low closing price)/2]*100. *INDUST* is an indicator variable equal 1 if the company belongs to Business Equipment's (computers, software, and electronic equipment's) and Telecommunications (telephone and televisions) based on Fama-French industry classification scheme. *TSTAT* is the value of the Test statistics. *HCTV* is the Heteroscedastically consistent T-value. *ADJRSQR* is the adjusted R square, and F-Value is the F-Value test statistics of the regression model.

Model No.		Model 1			Model 2			Model 3			Model 4			Model 5		
VARIABLES	PSIGN	PEST	TSTAT	HCTV	PEST	TSTAT	HCTV	PEST	TSTAT	HCTV	PEST	TSTAT	HCTV	PEST	TSTAT	HCTV
INTERCEPT	P/N	-0.009	-1.340	-1.430	0.009	1.970	2.180	-0.015	-3.260	-3.170	0.002	0.840	0.940	0.010	2.570	2.940
CZONE	NEG	-0.049	-13.610	-7.750	-0.049	-13.410	-7.340	-0.048	-14.090	-7.960	-0.048	-13.420	-7.600	-0.049	-13.920	-7.640
HRCON	NEG	-0.010	-3.790	-4.010	-0.008	-3.080	-3.220	-0.006	-2.580	-2.820	-0.007	-3.000	-3.140	-0.005	-2.000	-2.170
ARMGRP	POS	0.037	11.210	5.960	0.037	10.830	5.650	0.038	11.710	6.150	0.037	11.010	5.850	0.037	11.270	5.860
SANCTION	NEG	-0.010	-3.550	-2.620	-0.010	-3.470	-2.580	-0.009	-3.550	-2.570	-0.010	-3.750	-2.740	-0.009	-3.510	-2.600
REPUT	POS	0.017	4.600	4.120	na	na	na	0.017	4.780	4.230	0.022	7.160	7.300	na	na	na
TAFEES	NEG	-0.000	-1.010	-1.490	0.001	4.050	- 5.020	-0.000	-1.250	-1.810	na	na	na	-0.001	-3.850	-5.000
FPSCORE	POS	0.002	1.230	1.020	0.004	2.140	1.740	na	na	na	0.005	3.150	2.410	na	na	na
SIZE	POS	0.002	2.930	3.200	na	na	na	0.003	3.750	3.810	na	na	na	na	na	na
SPREAD	NEG	-0.000	-0.500	-0.520	-0.000	-1.730	-1.820	na	na	na	na	na	na	-0.001	-3.400	-3.370
INDUST	NEG	-0.004	-1.870	-1.740	-0.005	-1.900	-1.760	-0.003	-1.500	-1.410	-0.004	-1.740	-1.610	-0.004	-1.730	-1.620
NO. of Obs.		1122			1122			1124			1124			1198		
ADJRSQR		0.2016			0.1755			0.1916			0.1911			0.1681		
F-VALUE		29.310			30.830			36.64			40.150			35.560		

Table 9: Result of the Logistic Regression Analysis - with FRQ

The table reports the results from logistic regression model specified as:

$$LOGIT = \beta_0 + \beta_1 HRCN + \beta_2 SANCTION + \beta_3 REPUT + \beta_4 TAFEES + \beta_5 FPSCORE + \beta_6 FRQSCORE + \beta_7 SPREAD + \beta_8 SIZE + \beta_9 INDUST + \varepsilon;$$

Where: *LOGIT* is an indicator variable equal 1 if the company file Form SD and zero if it is not; *HRCN* is indicator variable equal one if the company has a human rights concern over the period 2011-2013 as reported by KLD database and zero otherwise. *SANCTION* is an indicator variable equal 1 if the company headquarter is located in the State of California, Maryland, and St. Petersburg-Florida, and zero otherwise, these state passed regulations to sanction companies with exposure to conflict minerals from obtaining state contracts. *REPUT* is a proxy for firm reputation and it is an indicator variable equal 1 if the company is one of the most admired companies as ranked by *Forbes* over the period from 2011 through 2013. *TAFEES* is dollar amount of the total audit fees from Audit Analytics for the year before the announcement year. *FPSCORE* is a proxy for firm's financial performance defined as the factor scores from a factor analysis utilizing 13 measures of financial performance. *FRQ* is a proxy for financial reporting quality utilizing three measures of financial reporting quality. *SPREAD* is bid-ask spread defined as [(the High closing price-the Low closing price)/ (High closing price + the Low closing price)/2]*100. *SIZE* is the log of total assets for the year before the announcement year. *INDUST* is an indicator variable equal 1 if the company belongs to Business Equipment's (computers, software, and electronic equipment's) and Telecommunications (telephone and televisions) based on Fama-French industry classification scheme. *PEST* is the parameter estimates of the regression equation. *TSTAT* is the value of the Test statistics. Pseudo RSQ is the Pseudo R-Square.

Variable	Expected Sign	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
		PEST	T-STAT	PEST	T-STAT	PEST	T-STAT	PEST	T-STAT	PEST	T-STAT	PEST	T-STAT	PEST	T-STAT
<i>Intercept</i>	Pos./Neg.	0.135	0.367	0.555	2.448**	1.331	10.480***	0.585	2.591**	0.227	1.037	0.875	2.574**	1.929	7.874***
<i>HRCN</i>	Positive	0.441	2.992***	0.361	2.653***	0.395	2.926***	0.361	2.658**	0.456	3.406***	0.326	2.508**	0.308	2.155**
<i>SANCTION</i>	Positive	0.040	0.291	0.051	0.372	0.024	0.024	0.050	0.361	0.024	0.178	0.045	0.329	0.025	0.185
<i>REPUT</i>	Negative	-0.516	-1.976**	-0.537	-2.073**	-0.431	-1.692*	na	na	-0.276	-1.334	na	na	-0.156	-0.709
<i>TAFEES</i>	Positive	0.119	5.086***	0.101	5.435***	0.111	6.011***	0.082	5.231***	na	na	na	na	na	na
<i>FPSCORE</i>	Positive	0.194	2.362**	0.166	2.076**	0.346	4.933***	0.172	2.158**	0.175	2.196**	0.132	1.688*	0.300	3.983***
<i>FRQ</i>	Positive	0.048	0.517	0.054	0.579	0.060	0.649	0.060	0.643	0.057	0.610	0.063	0.675	0.074	0.805
<i>SPREAD</i>	Positive	0.013	4.252***	0.012	4.035***	na	na	0.011	3.887***	0.015	4.800***	0.013	4.310***	na	na
<i>SIZE</i>	Positive	0.071	1.435	na	na	na	na	na	na	na	na	0.098	2.687**	0.140	3.811***
<i>INDUST</i>	Positive	0.995	7.378***	1.022	7.635***	0.998	7.525***	1.024	7.667***	1.001	7.534***	1.023	7.783***	1.036	7.753***
N		1600		1600		1600		1600		1600		1600		1600	
0		1017		1017		1017		1017		1017		1017		1017	
1		583		583		583		583		583		583		583	
Pseudo-RSQ		0.1103		0.1091		0.0993		0.1065		0.0864		0.0895		0.079	

Table 10: Result of the Logistic Regression - without FRQ

The table reports the results from logistic regression model specified as:

$$LOGIT = \beta_0 + \beta_1 HRCON + \beta_2 SANCTION + \beta_3 REPUT + \beta_4 TAFEES + \beta_5 FPSCORE + \beta_6 SPREAD + \beta_7 SIZE + \beta_8 INDUST + \varepsilon;$$

Where: *LOGIT* is an indicator variable equal 1 if the company file Form SD and zero if it is not; *HRCON* is indicator variable equal one if the company has a human rights concern over the period 2011-2013 as reported by KLD database and zero otherwise. *SANCTION* is an indicator variable equal 1 if the company headquarter is located in the State of California, Maryland, and St. Petersburg-Florida, and zero otherwise, these state passed regulations to sanction companies with exposure to conflict minerals from obtaining state contracts. *REPUT* is a proxy for firm reputation and it is an indicator variable equal 1 if the company is one of the most admired companies as ranked by *Forbes* over the period from 2011 through 2013. *TAFEES* is dollar amount of the total audit fees from Audit Analytics for the year before the announcement year. *FPSCORE* is a proxy for firm's financial performance defined as the factor scores from a factor analysis utilizing 13 measures of financial performance. *SPREAD* is bid-ask spread defined as [(the High closing price-the Low closing price)/ (High closing price + the Low closing price)/2]*100. *SIZE* is the log of total assets for the year before the announcement year. *INDUST* is an indicator variable equal 1 if the company belongs to Business Equipment's (computers, software, and electronic equipment's) and Telecommunications (telephone and televisions) based on Fama-French industry classification scheme. *PEST* is the parameter estimates of the regression equation. *TSTAT* is the value of the Test statistics. Pseudo RSQR is the Pseudo R-Square. N 2406 is the initial number of observation.

Variable	Expected Sign	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
		PEST	TSTAT	PEST	TSTAT	PEST	TSTAT	PEST	TSTAT	PEST	TSTAT	PEST	TSTAT	PEST	TSTAT
<i>Intercept</i>	Pos./Neg.	0.197	0.642	1.280	7.356***	1.781	18.439***	1.289	7.410***	0.935	5.660***	1.150	4.036***	1.933	9.660***
<i>HRCON</i>	Positive	0.643	5.954***	0.562	5.347***	0.605	5.798***	0.557	5.306***	0.578	5.567***	0.575	5.497***	0.603	5.773***
<i>SANCTION</i>	Positive	0.125	0.987	0.179	1.421	0.165	1.305	0.176	1.389	0.122	0.969	0.139	1.101	0.125	0.989
<i>REPUT</i>	Negative	-0.186	-0.880	-0.239	-1.163	-0.185	-0.895	na	na	-0.473	-2.774***	na	na	-0.490	-2.691**
<i>TAFEES</i>	Positive	0.113	7.197***	0.078	6.538***	0.085	7.067***	0.071	6.829***	na	na	na	na	na	na
<i>FPSCORE</i>	Positive	0.216	2.931***	0.149	2.065**	0.269	4.167***	0.149	2.071**	0.153	2.141**	0.137	1.879**	0.275	3.991***
<i>SPREAD</i>	Positive	0.010	4.435***	0.007	3.369***	na	na	0.007	3.287***	0.010	4.622***	0.010	4.381***	na	na
<i>SIZE</i>	Positive	0.154	4.219***	na	na	na	na	na	na	na	na	0.037	1.337	0.054	1.928**
<i>INDUST</i>	Positive	0.923	8.418***	0.961	8.794***	0.927	8.548***	0.965	8.828***	0.964	8.901***	0.965	8.893***	0.936	8.691***
N1		1700		1700		1700		1700		1700		1700		1700	
N2		706		706		706		706		706		706		706	
P-RSQR		0.1030		0.0955		0.0907		0.0949		0.0736		0.0712		0.0662	

Appendix A: Regulatory Intervention Timeline to Section 1502 Conflict Minerals

- *May 22, 2008:* Senators Samuel Brownback and Richard Durbin introduced to the Senate Finance Committee a bill called “Conflict Coltan and Cassiterite ACT of 2008” The main objectives of the bill is to 1) prohibit the importation of certain products that contain or are derived from columbite-tantalite or cassiterite mined or extracted in the Democratic Republic of the Congo (DRC), and for other purposes. 2) Identification of groups that commit human rights crimes under international law and benefits from minerals extraction in DRC. 3. To deny the minerals extractions benefits to groups in 2 above if it results in arms or money being transferred directly or indirectly to such groups. <https://www.govtrack.us/congress/bills>.

Confounding News: The bill (a provision) passed by the Senate as part of a financial reform Bill related to the housing crises and the financial market collapse. (Congo Minerals Provision Becomes Part of Financial Bill, *New York Times*, May 21, 2010)

- *April 23, 2009:* Senators Samuel Brownback, Richard Durbin, and Russ Feingold introduced the “Congo Conflict Minerals Act of 2009” (CCMA) to the Senate Banking, Housing, and Urban Affairs Committee to address the humanitarian crisis in the DRC. The bill requires annual disclosure to the Securities and Exchange Commission of activities involving columbite-tantalite, cassiterite, and wolframite from the DRC, and for other purposes. The CCMA declares that it is U.S. policy to promote peace and security in the DRC and to (1) monitor and stop commercial activities involving the natural resources of the DRC (the minerals columbite-tantalite [coltan], cassiterite, wolframite, and gold) that contribute to illegal armed groups and human rights violations in the eastern region of the DRC; and (2) Develop stronger governance and economic institutions that can facilitate and improve transparency in the cross-border trade involving such natural resources in order to reduce exploitation by illegal armed groups and promote local and regional development. <https://www.govtrack.us/congress/bills>.

Confounding News: 1. The US Treasury announced plan to sell \$158 billion in short-and long-term securities (Wall Street Journal, April 24, 2009). 2. Treasury Secretary Timothy Geithner reassuring investors that the vast majority of banks have more capital than they need, the statement sends DJIA up 127.83 point or 1.6 percent (Wall Street Journal, April 22, 2009). 3. A late-day sell off left stocks in the red amid disappointing earnings and renewed worry about general Motors bankruptcy. The Dow Jones Industrial Average lost more than 110 points, or 1.4 %, in the last half hours of trading (*Wall Street Journal* 23, April 2009).

- *July 21, 2010:* The U.S. Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act. Section 1502 of the Act is a provision related to conflict minerals. The intent of the provision is to deter, through increased transparency of companies ‘sourcing practices’, the extreme violence and human rights violations in the DRC and neighboring countries funded by the exploitation and trade of certain minerals. The term “conflict mineral” is defined as: columbite-tantalite, also known as coltan (the metal ore from which tantalum is extracted); cassiterite (the metal ore from which tin is extracted); gold; wolframite (the metal ore from which tungsten is extracted); or their derivatives. Additionally, any other mineral or its derivatives could be added if determined by the Secretary of State to be financing conflict in the DRC countries. Section 1502 instructs the U.S. Securities and Exchange Commission (SEC), in consultation with the U.S. Department of State, to promulgate regulations requiring certain companies to submit annually a description of measures taken to exercise due diligence on the source and chain of custody of conflict minerals. <https://www.sec.gov/about/wallstreetreform>.

Confounding News: Section 1502 of the Dodd-Frank Act is part of the Wall Street Reform Protection Act which includes provisions to enhance the asset backed securitization process, create oversight of credit rating agencies, executive compensation and corporate governance reform, Volcker Rule which aims to reduce systemic risk in the banking industry, among other provisions.

- September 11, 2010: President Joseph Kabila outlaws all artisanal mining activities in three eastern provinces. He ordered the indefinite suspension during a visit to the mining hub town of Walikale; the mining industry later confirmed it was with immediate effect. <http://thinkafricapress.com/>
- *December 15, 2010:* the SEC proposed changes to the annual reporting requirements of issuers that file reports pursuant to Sections 13(a) or 15(d) of the Securities Exchange Act of 1934 to implement Section 1502. The proposed rules would require any issuer for which conflict minerals are necessary to the functionality or production of a product manufactured, or contracted to be manufactured, by that issuer to disclose in the body of its annual report whether its conflict minerals originated in the DRC or an adjoining country. If so, that issuer would be required to furnish a separate report as an exhibit to its annual report that includes, among other matters, a description of the measures taken by the issuer to exercise due diligence on the source and chain of custody of its conflict minerals. These due diligence measures would include, but would not be limited to, an independent private sector audit of the issuer's report conducted in accordance with standards established by the Comptroller General of the United States. Further, any issuer furnishing such a report would be required, in that report, to certify that it obtained an independent private sector audit of its report, provide the audit report, and make its reports available to the public on its Internet website. (*SEC, 17 CFR PARTS 229 and 249, Release No. 34-6379*).

Confounding News: 1. Congress passes the most far-reaching tax bill in a decade, averting across-the-board tax increases, enacting new breaks for individuals and businesses and laying a marker for how Washington might work in an era of divided government (Wall Street Journal, 16, December 2010). 2. Release of the retail sales report pushed stocks to a new two-year high. The Dow Jones Industrial Average rose nearly 48 points. Furthermore, on Tuesday, the National Federation of Independent Business said its small-business optimism index rose 1.5 point in November to 93.2, its highest level since December 2007 (Wall Street Journal, 15, December 2010).

- *April 7, 2011:* California Senator Ellen Corbett introduced bill SB 861, which supports the federal legislation on conflict minerals. If this bill passes, publicly traded companies will not be able to sell products to California's government agencies unless they comply with the upcoming disclosure requirements by the Security and Exchange Commission. Senate Bill 861 received bipartisan support, passing out of the Senate Governmental Organization Committee on a 9 to 1 vote. Tuesday Senator Corbett receive a letter from 28 investors with assets under management of more than \$123 billion which points out to the importance of disclosure and accountability of companies' entire value chains. <http://www.sourcingnetwork.org>.
- *May 25, 2011:* The Organization for Economic Co-operation and Development (OECD) issued the "*OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*", which provides detailed recommendations to help companies respect human rights and avoid contributing to conflict through their mineral purchasing decisions and practices. The Due Diligence Guidance is for use by any

company potentially sourcing minerals or metals from conflict-affected and high-risk areas. It is the only international frameworks available to help companies meet their due diligence reporting requirements. The due diligence guidance outline procedures to properly identify and assess risks related to the "extraction, trading, handling and export of minerals from conflict-affected and high-risk areas" The OECD is an international organization with 34 member countries including the United States and its recommendation is binding to all members and is endorsed by the US State Department, the Securities and Exchange Commission, and the United Nations. www.oecd.org

Confounding News: 1. Stocks registered a third consecutive day of losses after manufacturing data combined with worries about Europe's debt-laden countries weighed on investor sentiment. The Dow Jones Industrial Average finished down 25.05 points, or 0.2%, its lowest close since April 19. The technology-oriented Nasdaq Composite fell 12.74 points, or 0.5%.

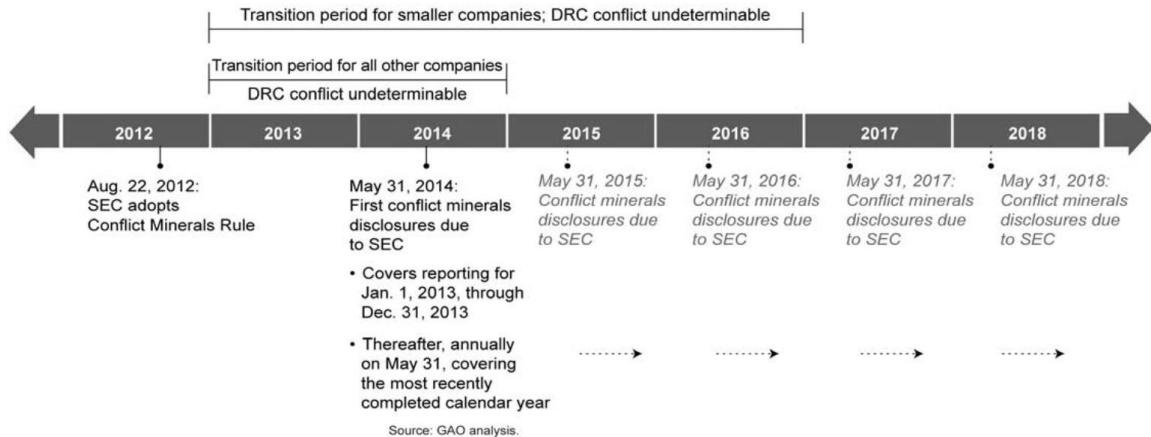
- July 15, 2011:* The US Department of State issued a statement to urging companies to begin to exercise due diligence immediately in order to ensure a viable and conflict free supply chain. Under Section 1502 the Department is "to provide guidance to commercial entities seeking to exercise due diligence on and formalize the origin and chain of custody of conflict minerals used in their products and on their suppliers to ensure that conflict minerals used in the products of such suppliers do not directly or indirectly finance armed conflict or result in labor or human rights violations." The Department states that "... it is critical that companies begin now to perform meaningful due diligence with respect to conflict minerals. To this end, companies should begin immediately to structure their supply chain relationships in a responsible and productive manner to encourage legitimate, conflict-free trade, including conflict-free minerals sourced from the DRC and the Great Lakes region. Furthermore, the Department specifically endorses the guidance and framework issued by the Organization for Economic Co-operation and Development (OECD) and encourages companies to draw upon this guidance as they establish their due diligence practices. Under this five-step framework, companies should: 1) Establish strong company management systems; 2) Identify and assess risk in the supply chain; 3) Design and implement a strategy to respond to identified risks; 4) Carry out independent third-party audit of supply chain due diligence at identified points in the supply chain; and 5) Report on supply chain due diligence. <http://www.state.gov>
- September 16, 2011:* The California Legislature passed SB 861, a law that requires public companies to comply with the Dodd-Frank provision on conflict minerals if they want to do business with the state of California. Gov. Jerry Brown is expected to sign the California bill, says Matt Brown, a spokesman for the Enough Project, a group active on the issue. He adds "This is saying that if you are not in compliance, you won't be able to do business with the state of California, which is a huge consumer of electronics and other products. Basically, California is taking a step and saying conflict minerals matter."
- October 3, 2011:* St. Petersburg Passes Resolution to Favor Products Free of Congo Conflict Minerals on Oct 3, 2011. The City of St. Petersburg has passed a resolution changing its purchasing practices on electronics to favor products that are free of conflict minerals that are fueling the world's deadliest war in the Congo.

City Councilman Steve Kornell introduced the resolution that calls for the city to "favor verifiably conflict-free products" in its purchasing decisions. The action is part of a growing movement by governments and institutions to steer away from products that use conflict minerals, including tin, tungsten, tantalum and gold, from mines

in eastern Congo that are controlled by armed groups that perpetrate mass atrocities. <http://www.enoughproject.org/news>.

Confounding News: The Dow Jones Industrial Average (DJIA) plunged 240.6 points or 2.2% to finish the day at 10,913.38. The Standard & Poor 500 (S&P 500) dropped 2.5% to close at 1,131.42. European debt crisis and US recessionary fears have threatened the global economy and have significantly dampened investor sentiment. www.zaks.com

- *October 9, 2011:* California Governor Jerry Brown approved SB 861, the California law related to conflict materials from the DRC. Sb 861 adds Section 10490 to the California Public Contract Code, which precludes companies that are in violation of the conflict materials reporting requirements under Section 13(p) of the Securities Exchange Act of 1934 (as added by Section 1502 of the Dodd-Frank Act) from contracting with state agencies in California. Specifically, a company subject to the conflict minerals disclosure requirements under Section 13(p) "is ineligible to, and shall not, bid on or submit a proposal for a contract with a state agency for goods or services related to products or services that are the reason the company must comply with Section 13(p)" if the company "has been found to be in violation of Section 13(p)...by final judgment or settlement....". <http://accountabilityroundtable.org>
- *May 2, 2012:* Governor Martin O'Malley signed the Maryland State Procurement and Congo Conflict Minerals Bill (Senate Bill 861) into law. The law addresses the link between the minerals in electronics products and the ongoing violence in eastern Congo. It requires that the state of Maryland does not conduct business with companies that fail to comply with the federal laws on conflict minerals passed in 2010 as a provision of the Dodd-Frank Wall Street Reform Act...State Delegate Shane Robinson...said, "Hopefully, more state legislatures will pass similar laws that send a message that corporations must be held accountable for social, economic, and environmental impacts at home and abroad in order to earn state contracts." <http://business-humanrights.org>
- *August 22, 2012:* the SEC issued a final rule on conflict minerals pursuant to Dodd-Frank Section 1502. Section 1502 added Section 13(p) to the Securities Exchange Act of 1934, which requires the Commission to promulgate rules requiring issuers with conflict minerals that are necessary to the functionality or production of a product manufactured by such person to disclose annually whether any of those minerals originated in the DRC or an adjoining country. If an issuer's conflict minerals originated in those countries, Section 13(p) requires the issuer to submit a report to the Commission that includes a description of the measures it took to exercise due diligence on the conflict minerals' source and chain of custody. The measures taken to exercise due diligence must include an independent private sector audit of the report that is conducted in accordance with standards established by the Comptroller General of the United States. Section 13(p) also requires the issuer submitting the report to identify the auditor and to certify the audit. In addition, Section 13(p) requires the report to include a description of the products manufactured or contracted to be manufactured that are not "DRC conflict free," the facilities used to process the conflict minerals, the country of origin of the conflict minerals, and the efforts to determine the mine or location of origin. Section 13(p) requires the information disclosed by the issuer to be available to the public on its Internet website. The timeline for SEC-reporting companies to submit conflict minerals disclosures to SEC is given in Figure (1) below. <http://www.sec.gov>



- October 19, 2012: the National Association of Manufacturers, US Chamber of Commerce, and Business Roundtable (Petitioners) petitioned the U.S. Court of Appeals for the District of Columbia Circuit for review of the Conflict Minerals Rule and Section 1502. The Petitioners challenging the SEC’s rule on disclosure of the use of conflict minerals and requesting that the new Conflict Minerals Rule be modified or set aside in whole or in part. The SEC, Amnesty International USA and Amnesty International Limited intervened as respondents in support of the Conflict Minerals Rule and Section 1502. <http://www.conflictmineralslaw.com>
- March, 26, 2013: which would require Canadian Companies to exercise due diligence in respect of the exploitation and trading of designated minerals originating in the Great Lakes Region of Africa in seeking to ensure that no armed rebel organization or criminal entity or public or private security force that is engaged in illegal activities or serious human rights abuses has benefited from any transaction involving such minerals. <http://openparliament.ca/politicians/paul-dewar/>
- July 23, 2013: the U.S. Federal district court for the District of Columbia rejected a challenge brought by industry groups to the SEC’s rule requiring disclosure about use of “conflict minerals” The district court upheld the Conflict Minerals Rule in full and rejected the industry groups’ argument that Section 1502 violates companies’ First Amendment rights. A panel of the D.C. Circuit upheld the Rule against most challenges by the industry groups, including a challenge to the SEC’s analysis of the Rule’s costs and benefits. In light of this decision, companies covered by the rule should continue to work to prepare their first annual filing of conflict minerals disclosures, which is due May 31, 2014. In the decision, *National Association of Manufacturers et al. v. Securities and Exchange Commission*, the court denied the plaintiffs’ motion for summary judgment and granted summary judgment in favor of the SEC.

Confounding News: 1. Weak manufacturing data in US hurt shares, the standard and Poor’s 500-stock index fell 3.14 points, with technology leading six of 10 industry sectors lower. The tech-heavy NASDAQ Composite Index also fell, dropping 21.11 points. 2. European markets were dragged into negative territory late in the session after US manufacturers in the central Atlantic region said activity deteriorated this month (*Wall Street Journal*, 23 July 2013).

Appendix B: Conflict Mineral Worldwide Production Distribution in 2009 by Top 5 Countries of Producers

This table reports the production of Tungsten, Tantalum, Tin, and Gold by the top five producers' countries as measured by metric tons and the percentage of the each country production relative to the total worldwide production. The table also reports the DRC production relative to the worldwide production, the total revenue generated from each mineral in millions of US dollars and the amount which fund DRC conflict.

Panel A: Production of Conflict Minerals							
Tungsten		Tantalum	Tin		Gold		
Country	Production	Country	Production	Country	Production	Country	Production
China	51000 (83.2%)	Brazil	180 (26.9%)	China	115000 (44.2%)	China	320 (13.1%)
Russia	2500 (4.1%)	Mozambique	113 (16.9%)	Indonesia	55000 (21.2%)	United States	223 (9.1%)
Canada	1964 (3.2%)	Rwanda	104 (15.5%)	Peru	37503 (14.4%)	Australia	222 (9.1%)
Bolivia	19273 (7.4%)	DRC	87 (13.1%)	Bolivia	19273 (7.4%)	South Africa	198 (8.1%)
Austria & Portugal	900 (1.5%)	Australia	81 (12.1%)	Brazil	13000 (5.0%)	Russia	191 (7.8%)
World Production	61300	Na.	670 (100%)	Na.	260000 (100%)	Na.	2450 (100%)
DRC Production	170 (0.28%)	Na.	87 (12.99%)	Na.	9400 (3.62%)	Na.	2 (0.08%)
Panel B: Revenue of DRC from Conflict Minerals							
Revenue (DRC)	\$4.37m	Na.	\$6.36m	Na.	\$133.48m	Na.	\$62.60m
Funding the War	\$2.62m	Na.	\$3.82m	Na.	\$80.09m	Na.	\$37.56m

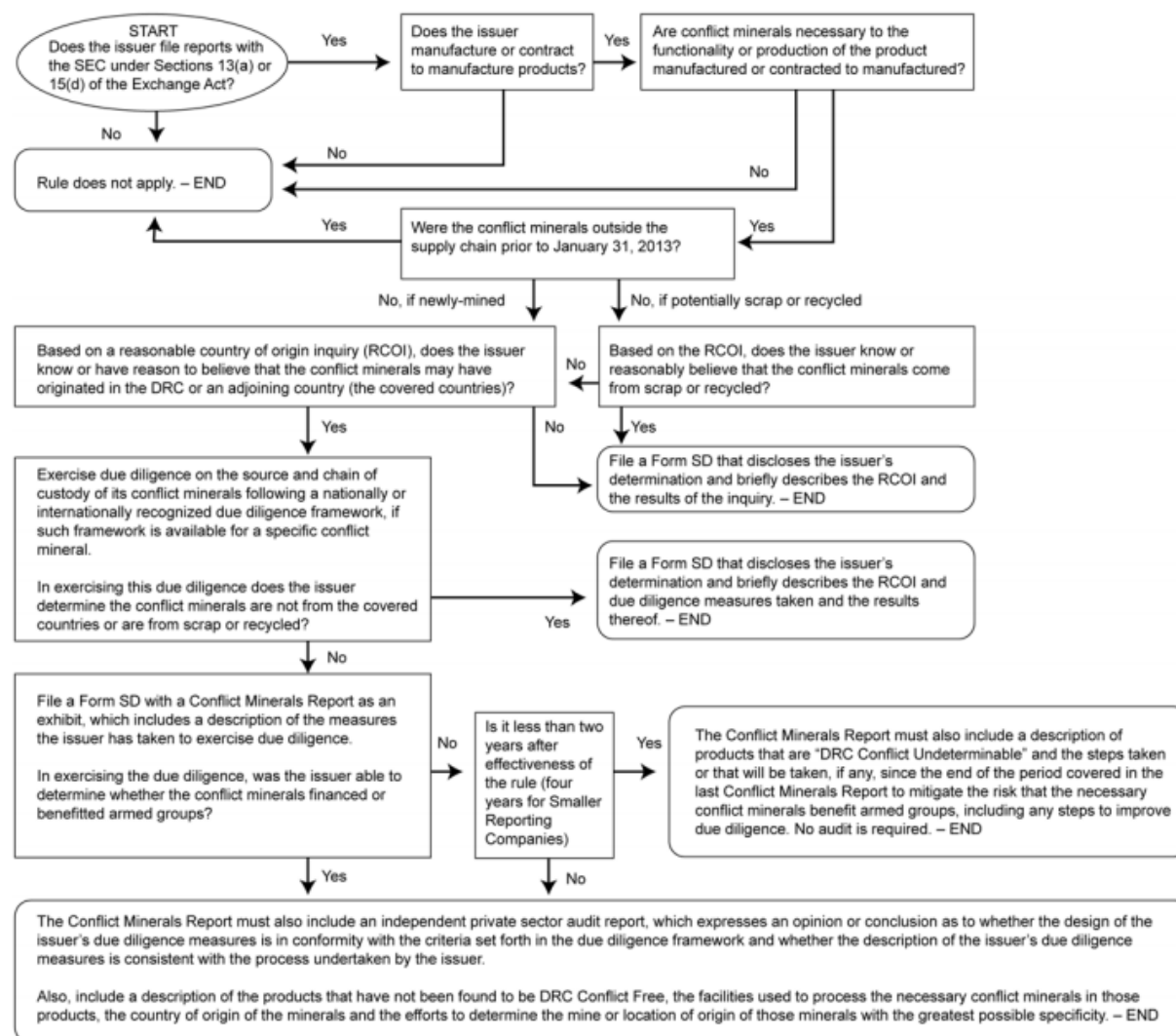
Source: <http://visual.ly/conflict-minerals-3tg>

Appendix C: Description of the Variables utilized in the Study

Variable	Description	Source	Period Covered
<i>HRCON</i>	Indicator variable equal one if KLD indicate that the company has a human right concern in any of the years from 2011-2013.	KLD	2011-2013
<i>REPUT</i>	Indicator variable equal one if the company is listed by Fortune Magazine as one of the most admired companies and zero otherwise.	Fortune	2011-2013
<i>TAFEEES</i>	The dollar amount of the total audit fees defined as the audit fees plus non-audit fees	Audit Analytics	2013
<i>AFEEES</i>	The dollar amount of the audit fees	Audit Analytics	2013
<i>NAFEEES</i>	The dollar amount of the non-audit fees	Audit Analytics	2013
<i>SANCTION</i>	Indicator variable equal one if the company headquarter is located in the State of California, Maryland, and St. Petersburg-Florida, and zero otherwise	COMPUSTAT	2013
<i>SPREAD</i>	The bid-ask spread defined as the three-year (2011-2013) average of: $(\text{Year-end highest closing price} - \text{Year-end lowest closing price}) / (\text{Year-end highest closing price} + \text{Year-end lowest closing price}) / 2 * 100$	COMPUSTAT/CRSP	2011-2013
<i>INDUST</i>	Indicator variable equal 1 if the company belongs to group 6 and 7 categories based on Fama-French (1997) industry classifications. Group 6= Business Equipment's (computers, software, and electronic equipment's) and group 7 = Telecommunications (telephone and televisions)	Fama-French	2013
<i>FPSCORE</i>	Factor score measuring firm financial performance, summarizing 13 measures of book value and market value based measures.	COMPUSTAT	2008-2012
<i>ROA</i>	The average of 2013 four quarter <i>ROA</i> defined as the net income divided by total assets	COMPUSTAT	2013
<i>ROE</i>	The average of 2013 four quarter <i>ROE</i> defined as net income divided by shareholders' equity	COMPUSTAT	2013
<i>ROS</i>	The average of 2013 four quarter <i>ROS</i> defined as net income divided by net sales	COMPUSTAT	2013
<i>EVA</i>	The economic value added defined as: $EVA = EBIT / \text{Total Asset}$ where $EBIT = OIADPQ - NOPIQ$. Where EBIT is the earning before interest and taxes, OIADPQ is the quarterly operating income before depreciation, NOPIQ is the quarterly non-operating income (expense).	COMPUSTAT	2013
<i>EVADA</i>	The economic value added after depreciation and amortization defined as: $EVADA = EBITDA / \text{Total Asset}$ where $EBITDA = OIBDPQ - NOIQ$. Where OIADPQ is the quarterly operating income before depreciation, NOPIQ is the quarterly non-operating income (expense).	COMPUSTAT	2013
<i>EPS</i>	Earnings per share(including extraordinary items)	COMPUSTAT	2013
<i>QEARN</i>	Proxy for Earnings Quality defined as: $QEARN = OANCFY / NI$. Where OANCFY is net operating cash flow from operating activities, and NI is the net income.	COMPUSTAT	2013
<i>TOBQ</i>	The Tobin-q ratio defined as: $TOBQ = (MV + PSTKQ + DLCQ + DLTQ) / \text{Total Asset}$ where $MV = CSHO * PRCC_C$. Where MV is the market value of the firm, <i>PSTKQ</i> is the total preferred or preference stock, <i>DLCQ</i> is the amount of debt in current liabilities, <i>DLTQ</i> is the amount of long-term debt, <i>CSHO</i> is the number of common shares outstanding, and <i>PRCC</i> is the end of quarter market closing price.	COMPUSTAT	2013
<i>MVA</i>	Market Value added defined as: $MVA = MV - BV - DLCQ - DLTQ$. Where MV is the market value of equity, BV is the book value of equity, <i>DLCQ</i> is the amount of debt in current liabilities, and <i>DLTQ</i> is the amount of long-term debt.	COMPUSTAT	2013
<i>EPSG</i>	The earnings growth rate in <i>EPS</i> over the previous quarter, which is $EPSG = (EPS_t - EPS_{t-1}) / EPS_{t-1}$.	COMPUSTAT	2013
<i>SALEG</i>	The sales growth rate over the previous year, which is $SALEG = (SALE_t - SALE_{t-1}) / SALE_{t-1}$	COMPUSTAT	2013

<i>RETH</i>	Quarterly rate of return, which is the sum of monthly stock returns over the quarter	COMPUSTAT/CRSP	2013
<i>ABRD</i>	Abnormal rate of return, which is the sum of the Difference between the Firms' Return and value-weighted market return divided by the standard deviation of the Firms' Return	CRSP	2013
<i>REPScore</i>	The factor score measuring companies' reputation	COMUSTAT	2013
<i>FRQ</i>	The proxy for companies' financial reporting quality using three measures of financial reporting quality	COMPUSTAT-I/B/E/S	2007-2012
<i>MJON</i>	The proxy for FRQ using Jones model	COMPUSTAT-I/B/E/S	2011-2012
<i>JONMPM</i>	The proxy for FRQ using modified Jones model	COMPUSTAT-I/B/E/S	2011-2012
<i>FLOSIC</i>	The proxy for FRQ using cash flow forecast (FLOS) model	COMPUSTAT-I/B/E/S	2011-2012
<i>MVEQ (M\$)</i>	Market Value of Equity (US Dollars)	COMPUSTAT	2007-2013
<i>ASSETS (M\$)</i>	Total Assets (US Dollars)	COMPUSTAT	2007-2013
<i>CZONE1</i>	Indicator variable equal 1 if the company disclosed in its Form SD that it source minerals from conflict zone and zero otherwise.	Form SD (EDGAR)	2014
<i>CZONE2</i>	Indicator variable equal 1 if the company disclosed in its Form SD that it source minerals from conflict zone or the source of its minerals is undetermined and zero otherwise	Form SD (EDGAR)	2014
<i>ARMGRP</i>	Indicator variable equal 1 if the company disclosed in its Form SD that the proceeds from its conflict minerals do not support armed groups and zero otherwise.	Form SD (EDGAR)	2014
<i>ARMGRP2</i>	Indicator variable equal 1 if the company disclosed in its Form SD that the proceeds from its conflict minerals is undeterminable on wither it support armed groups or not and zero otherwise.	Form SD (EDGAR)	2014
<i>SIZE</i>	Log of total assets for the year before the announcement year	COMPUSTAT	2013

Exhibit 1: Flowchart of Conflict Mineral Disclosure by SEC



Source: SEC.

Note: SEC indicated that the flowchart is intended to be used as a guide and that issuers should refer to the text in the rule for a more comprehensive description of the rule's requirements.

Exhibit 2: Form SD 2014 Disclosure for Intel Corporation

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM SD
Specialized Disclosure Report



INTEL CORPORATION

(Exact name of the registrant as specified in its charter)

Delaware	000-06217	94-1672743
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)
2200 Mission College Boulevard, Santa Clara, California		95054-1549
(Address of principal executive offices)		(Zip code)
Cary I. Klafter		(408) 765-8080
(Name and telephone number, including area code, of the person to contact in connection with this report.)		

Check the appropriate box to indicate the rule pursuant to which this form is being filed, and provide the period to which the information in this form applies:

☒ Rule 13p-1 under the Securities Exchange Act (17 CFR 240.13p-1) for the reporting period from January 1 to December 31, 2013

1

Overview of Intel's Conflict Minerals Program: ...we know that many of our hardware products contain tantalum, tin, tungsten and/or gold that is necessary to the functionality or production of those products. Conflict minerals are obtained from sources worldwide, and our desire is not to eliminate those originating in the Covered Countries but rather to obtain conflict minerals from sources that do not directly or indirectly finance or benefit armed groups in the Covered Countries. We believe that it is important for us and other companies to support responsible in-region mineral sourcing from the Covered Countries in order to not negatively affect the economies of such countries.

For over five years, we have worked extensively to help put processes and systems in place for our company and others to manufacture products that are DRC conflict free. We have co-chaired industry working groups, recognizing that broad collaborative efforts are needed to solve this complex problem. In addition to working with others in the electronics industry, we have worked on initiatives with other industries that use necessary conflict minerals (e.g., jewelry, automotive, medical instrumentation, and others) to help create "conflict free" supply chains. We have been recognized as a leader for our work in support of conflict free supply chains and products and believe we were the first electronics company to publish goals related to manufacturing DRC conflict free products. Below is a summary of some of our milestones, accomplishments and current efforts regarding conflict minerals:

Established the Electronic Industry Citizenship Coalition ("EICC") and Global e-Sustainability Initiative ("GeSI") Extractives Working Group with the goal of establishing conflict free supply chains; Visited over 85 smelters and refiners in 21 countries with the goal of providing education on conflict minerals, collecting country of origin and chain of custody information regarding the necessary conflict minerals in our supply chain, and encouraging participation in the Conflict-Free Smelter Program ("CFSP"); Developed conflict minerals sourcing policy, entitled "Socially Responsible Sourcing Statement"; Supported in-region mining efforts by participating in the "Solutions for Hope" pilot to obtain tantalum from conflict free sources in the DRC and in the Public-Private Alliance for Responsible Minerals Trade; Co-founded a Smelter Incentive Program which helped pay for smelter audits, reducing the direct financial burden to smelters and refiners to help encourage their early participation.

Conflict Minerals Sourcing Policy: Conflict minerals originating from the DRC are sometimes mined and sold, "under the control of armed groups", to "finance conflict characterized by extreme levels of violence". Some of these minerals can make their way into the supply chains of the products used around the world, including those in the electronics industry. Intel's suppliers acquire and use conflict minerals from multiple sources worldwide. As part of Intel's commitment to corporate responsibility and respecting human rights in our own operations and in our global supply chain, it is Intel's goal to use tantalum, tin, tungsten and gold in our products that do not directly or indirectly finance or benefit armed groups in the Covered Countries while continuing to support responsible mineral sourcing in the region. Intel expects our suppliers to have in place policies and due diligence measures that will enable us to reasonably assure that products and components supplied to us containing conflict minerals are DRC conflict free. Intel expects our suppliers to comply with the EICC Code of Conduct and conduct their business in alignment with Intel's supply chain responsibility expectations.

In support of this policy, Intel will: 1) Exercise due diligence with relevant suppliers consistent with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas and encourage our suppliers to do likewise with their suppliers. 2) Provide, and expect our suppliers to cooperate in providing, due diligence information to confirm the tantalum, tin, tungsten and gold in our supply chain are conflict free. 3) Collaborate with our suppliers and others on industry-wide solutions to enable products that are DRC conflict free. 4) Commit to transparency in the implementation of this policy by making available reports on our progress to relevant stakeholders and the public. The full text of our Conflict Minerals Sourcing Policy is available at www.intel.com/conflictfree. The content of any website referred to in this Form SD is included for general information only and is not incorporated by reference in this Form SD.

Supply Chain Description: Most of our hardware products, primarily microprocessors, chipsets and their packages, are manufactured in Intel's own network of fabrication facilities ("fabs"). Although many of our hardware products contain conflict minerals, Intel does not purchase ore or unrefined conflict minerals from mines and is many steps removed in the supply chain from the mining of the conflict minerals. We purchase materials used in our products from a large network of suppliers; some of those materials contribute necessary conflict minerals to our products. The origin of conflict minerals cannot be determined with any certainty once the ores are smelted, refined and converted to ingots, bullion or other conflict minerals containing derivatives. The

2

Exhibit 2: Form SD 2014 Disclosure for Intel Corporation (continued)

smelters and refiners (sometimes referred to as “facilities”) are consolidating points for ore and are in the best position in the total supply chain to know the origin of the ores. We rely on our suppliers to assist with our reasonable country of origin inquiry and due diligence efforts, including the identification of smelters and refiners, for the conflict minerals contained in the materials which they supply to us. Intel is more knowledgeable about the source and chain of custody of the necessary conflict minerals contained in products we fully manufacture in our fabs as compared to products which we manufacture but which include ready-made component parts which we purchase, or products which we contract to manufacture with our direct suppliers.

SECTION 1 - CONFLICT MINERALS DISCLOSURE AND REPORT

Conclusion Based on Reasonable Country of Origin Inquiry: Intel has concluded in good faith that during 2013,

- a) Intel has manufactured and contracted to manufacture products as to which conflict minerals are necessary to the functionality or production of our products.
- b) Based on a reasonable country of origin inquiry (“RCOI”), Intel knows or has reason to believe that a portion of its necessary conflict minerals originated or may have originated in the Covered Countries and knows or has reason to believe that those necessary conflict minerals may not be solely from recycled or scrap sources.

Description of Reasonable Country of Origin Inquiry Efforts: Below is a description of our efforts to determine whether any of the necessary conflict minerals in our products originated in the Covered Countries.

Activities Prior to 2013: Our efforts to obtain information on the origin of the necessary conflict minerals began in 2009 when we first asked our suppliers to complete a survey on the origin of the conflict minerals supplied to Intel. Our initial survey results demonstrated significant variance in the amount of information suppliers knew about the origin of the minerals used in their supply chains. We determined that a validation process at the smelter and refiner level, where ore is refined, was the most effective method for obtaining country of origin information given that once a mineral is processed by such a facility, it is extremely difficult or impossible to know what country or mine the mineral originated from. We conducted our first on-site conflict minerals smelter review in 2009 and as of the date of this Form SD, we have visited over 85 smelters and refiners in 21 countries with the goal of collecting country of origin and chain of custody information regarding the necessary conflict minerals in our supply chain.

We have co-chaired the EICC and GeSI Extractives Working Group since 2008, which led to the creation of the Conflict Free Sourcing Initiative (“CFSI”), a joint initiative of which Intel is a member that has currently over 180 participating companies from seven different industries. We worked with the EICC and GeSI to develop the Conflict Minerals Reporting Template, a standardized reporting template to facilitate the transfer of information through the supply chain regarding mineral country of origin and identity of the smelters and refiners which processed the necessary conflict minerals contained in a registrant’s products. We also worked with these organizations to develop the Conflict-Free Smelter Program (“CFSP”), an audit program designed to validate smelters’ and refiners’ sourcing practices. Through the CFSP validation process, which is voluntary, an independent third party audits the procurement and processing activities of a smelter or refiner to determine if it showed sufficient documentation to demonstrate with reasonable confidence that the minerals the smelter or refiner processed originated from conflict free sources. CFSP compliant smelters and refiners receive a “conflict free” designation from CFSI. Lists of CFSP compliant smelters and refiners are available at the CFSI website at <http://www.conflictreesourcing.org/>.

RCOI for 2013 Reporting Year: For 2013, we conducted a supply chain survey with our direct suppliers to obtain country of origin information for the necessary conflict minerals in our products using the Conflict Minerals Reporting Template. That supply chain survey requests direct suppliers to identify the smelters and refiners and countries of origin of the conflict minerals in products they supply to Intel. We compared the smelters and refiners identified in the surveys against the lists of facilities which have received a “conflict free” designation by the CFSP or other independent third party audit program such as the London Bullion Market Association’s Responsible Gold Programme and the Responsible Jewellery Council’s Chain-of-Custody Certification program, which designations provide country of origin information on the conflict minerals sourced by such facilities. If a smelter or refiner in our supply chain was not listed as having received a “conflict free” designation, we proactively contacted such facility and requested country of origin information for the necessary

conflict minerals that it processed. We documented country of origin information for the smelters and refiners identified by the supply-chain survey as provided from multiple sources including the supply-chain survey, independent third party audit programs and directly from smelters and refiners that Intel contacted. There is significant overlap between our RCOI efforts and our due diligence measures performed. Our due diligence measures performed are discussed further in the Conflict Minerals Report filed as Exhibit 1.02 hereto.

Below is a summary of the country of origin information collected as a result of our RCOI efforts.

Conflict Mineral	Countries of origin and other sources may include the following
Tantalum	Australia, Brazil, Burundi, Canada, China, DRC, Egypt, Estonia, Ethiopia, Germany, India, Japan, Kazakhstan, Malaysia, Mozambique, Niger, Nigeria, Russian Federation, Rwanda, South Africa, Thailand, United States, Zimbabwe and recycled or scrap sources
Tin	Australia, Belgium, Bolivia, Brazil, Canada, China, DRC, India, Indonesia, Japan, Malaysia, Mexico, Peru, Philippines, Russian Federation, Rwanda, Thailand, United States and recycled or scrap sources
Tungsten	Australia, Austria, Bolivia, Brazil, Burundi, Cambodia, Canada, China, Colombia, Germany, Indonesia, Japan, Mexico, Nigeria, Peru, Portugal, Russian Federation, Rwanda, South Africa, Spain, Thailand, United States, Vietnam and recycled or scrap sources
Gold	Argentina, Armenia, Australia, Bolivia, Brazil, Bulgaria, Canada, Chile, China, Colombia, Ecuador, ..., United States, Uruguay, Uzbekistan, Venezuela and recycled or scrap sources

This Form SD and the Conflict Minerals Report, filed as Exhibit 1.02 hereto, are publicly available at www.intel.com and www.intel.com/conflictfree as well as the SEC’s EDGAR database at www.sec.gov.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the duly authorized undersigned.

INTEL CORPORATION

(Registrant)

By:	<u>/s/ Brian M. Krzanich</u>	<u>May 22, 2014</u>
	Brian M. Krzanich	(Date)
	Chief Executive Officer	

Exhibit 3: Form SD 2013 Disclosure for VEECO Instruments Inc.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM SD

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): June 2, 2014

VEECO INSTRUMENTS INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

0-16244
(Commission
File Number)

11-2989601
(IRS Employer
Identification No.)

Terminal Drive, Plainview, New York 11803
(Address of principal executive offices)

(516) 677-0200
(Registrant's telephone number, including area code)

Not applicable
(Former name or former address, if changed since last report)

Check the appropriate box to indicate the rule pursuant to which this form is being filed and provide the period to which the information in this form applies:

☒ Rule 13p-1 under the Security and Exchange Act (17 CFR 240.13p-1) for the reporting period January 1 to December 31, 2013

Section 1 — Conflict Mineral Disclosure and Report

This Form SD disclosure for the year ended December 31, 2013, is presented to comply with Rule 13p-1 under the Securities Exchange Act of 1934.

.... Certain Conflict Minerals are necessary to the functionality of our products. We have conducted a reasonable country of origin inquiry ("RCOI"), as described below, to determine whether any Conflict Minerals necessary to the functionality or production of our products originated in a Covered Country.

Prior to initiating our RCOI, we retained a regulatory compliance information management company to assist in structuring the process and administering data collection. Our inquiry began with a review of all of our suppliers. We focused our RCOI on suppliers that comprise the top 80% of our annual direct expense and eliminated suppliers that do not, due to the nature of their business, utilize Conflict Minerals. We provided the remaining 345 suppliers with a questionnaire based on the Electronic Industry Citizenship Coalition-Global e-Sustainability Initiative Conflict Minerals Common Reporting Template, asking them, among other things, to disclose the origin of any Conflict Minerals used in their manufacturing processes and to identify the Conflict Mineral processing facilities within their supply chain. We also asked them, if accurate, to represent that their Conflict Minerals did not originate from a Covered Country. We reviewed questionnaires received for completeness and consistency of answers. Suppliers were required to provide corrections and clarifications where needed.

While we believe our RCOI process was reasonably designed and performed in good faith, there are inherent limitations in the information provided to us by third parties, including the possibility of information being inaccurate, incomplete or falsified, despite our efforts to validate and confirm the information.

Based on the results of our RCOI, we have no reason to believe that Conflict Minerals necessary to the functionality or production of our products have originated in a Covered Country. We will continue to actively engage suppliers who have not been able to provide us full sourcing information to ensure that we receive a response as soon as practicable. Additionally, we have adopted a Conflict Minerals Policy and formulated training sessions for key employees intended to identify warning signs indicating that Conflict Minerals may have originated in a Covered Country.

We provide a link on our website, www.veeco.com, under Investors—Financial Information—SEC Filings, through which investors can access our filed annual Form SD Specialized Disclosure Report.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the duly authorized undersigned.

VEECO INSTRUMENTS INC.

By: /s/ Gregory A. Robbins June 2, 2014
Name: Gregory A. Robbins, Senior Vice President and General Counsel